X 104

PROGRESS REPORT

OF

FOREST ADMINISTRATION

IN THE

HYDERABAD ASSIGNED DISTRICTS,

FOR

1886–87.

WITH A REVIEW BY THE RESIDENT AT HYDERABAD.

Hyderabad:
PRINTED AT THE RESIDENCY GOVERNMENT PRESS.
1887.

Price 1 Rupee per copy.

No. 3839 of 1887.

From

LESLIE S. SAUNDERS, Esq., C.S.,

Commissioner, Hyderabad Assigned Districts,

To

The SECRETARY for BERAR to the RESIDENT,

Hyderabad.

SECRETARY LIBRARY

Dated Amraoti, 20*th July* 1887.

Sir,

I have the honour to forward herewith the Report of the Conservator of Forests on the administration of the Forest Department during the year 1886-87, which reached me in print on 12th July.

2. The Berar Forest Law, 1886, was published during the year. The Conservator of Forests prepared and submitted some draft rules under that law, but as many of them were unsuitable, a small committee was appointed to re-draft them. The result of the committee's deliberations are now in the Press, and should be shortly submitted for the orders of the Resident.

3. In paragraph 2 of the Report it is pointed out that the superior staff was not sufficient to provide an officer for each district until November 1886. From that date each civil district has been placed under a District Forest Officer, and the establishment is complete for the first time.

4. The total area of forest lands was 4,141 square miles, which very closely approximates to the total (4,342) exhibited in last year's return. Explanations are given in the body of the Report (paragraphs 20 to 27) regarding minor transfers, additions, and exclusions, which need not be more particularly noticed here.

5. The fall of rain in the Melghat during the year, amounting to 96½ inches, was far in excess of the average, and the almost unknown fall of 21 inches in two days, nearly 17 of which fell on 19th August, is said to have damaged the forest roads and buildings considerably, but to have been good for general reproduction of forest produce; heavy rain in the cold weather (January 1886) also cut up the roads and prevented the usual sales on what are generally looked upon as some of the best bazaar or sale days of the year.

6. As regards demarcation and boundary surveys, satisfactory progress has again been reported, and the necessary attention seems to have been paid to the maintenance of existing boundaries. The only district in which boundaries are not in a satisfactory condition is Amraoti. I can imagine no reason for this, as the District Forest Officer was in charge for the whole year, and his work is by no means heavy. The Deputy Commissioner's attention will be called to Conservator of Forests' remarks in paragraph 26 of his Report, and a special report will be called for. The settlement of the boundary between the Melghat and the Betul District of the Central Provinces was completed during the year and reported to the Resident in this office letter No. 1977 of 16th April last, and the boundary as laid down has been accepted by the Resident and the Central Provinces Administration. The boundary line with the Nimar District of the Central Provinces is to be taken up during the coming cold season.

The survey of the Melghat is still going on under Mr. Reynolds of the Forest Survey; the maps are some of the best that have ever been executed. I fear the work will not, however, be concluded within the original estimate.

The Conservator notices the difficulty there is in getting residents of Berar to join his department; there is a rush from all parts of Berar for any clerical work, but active work in the jungles is far from being popular. The same difficulty is felt in other departments where the work requires active habits.

7. There was a decrease of 16 in the number of prosecutions for breaches of forest law. Convictions were obtained in a smaller number of cases than in the previous year, and there would appear to have been a want of care in the disposal of certain cases, referred to by the Conservator, in the Amraoti and Buldana Districts. The Deputy Commissioner of Amraoti will be called upon to report about the cases decided by the Native Magistrates to which the Conservator takes exception in paragraph 35 of his Report.

8. The area (in acres) of the forest tracts protected from fire may be thus compared:—

	1886-87.		1885-86.
Area the protection of which was attempted	668,371	...	669,308
Failures	14,769	...	18,342
Actually protected	653,602	...	646,966

These figures show that a fair measure of success was attained during the year. The area attempted to be protected was smaller by 937 acres; the area actually protected was considerably greater, while the cost of this protection fell from Rs. 5-14-0 to Rs. 5-11-5 per square mile in 1886-87.

The loss by fire of 11,419 acres in the Wun District is much to be regretted, and greater care in burning fire lines is evidently necessary, for in Wun 1,242 acres, in Basim 1,000 acres, in Amraoti 153 acres, in Akola 100 acres, and in Buldana 50 acres, or upwards of 2,500 acres in all, are said to have been accidentally burnt during these operations.

The wonderful immunity from fire observed in the Melghat is, no doubt, in a large measure due to the successful working of that tract, as the people there are interested in keeping fires down.

Of the 14,769 acres burnt during the year under report, 11,419 acres are, as above mentioned, accounted for in the Wun District. The Conservator attributes the frequent occurrences of fires in the Wun District to wilful acts of incendiarism; he also mentions that Colonel FitzGerald, the late Deputy Commissioner, is said to have issued a large number of gun licenses to shikaris and snarers, who, he considers, dislike our protective operations, and who, he therefore (I gather) thinks, are likely to be incendiaries. I regret to find that very few of these fires are brought home to the culprits, and I hope it may be found possible there to imitate the success attained in the Melghat in the future.

The Conservator of Forests, in paragraph 44 of his Report, guesses that an area of 100,000 acres has been burnt in the open forests. I am unable to say on what foundation he bases this estimate; it seems to me to be altogether in excess of probability and, without detailed enquiry, not to be very useful. The Deputy Commissioners will be directed to carefully report on this subject in future years.

9. Light grazing was again permitted in the reserves, and, the Conservator thinks, with advantage to reproduction of young trees. I agree with him on this point.

The number of cattle for the grazing of which the department was paid directly is given in paragraph 48 of the Report as 830,291 head. It is not there recorded what income was derived from this source, but the grazing for the whole province brings in a very large sum.

No change was made during the year in the arrangements for grazing sales, and the right of grazing was again sold by auction in parts of four districts; this system will cease in the current year, and all grazing will take place on passes in future.

The progress of natural reproduction in areas under protection from fire is decidedly satisfactory.

The operations in the way of artificial reproduction described in paragraph 51 of the Report is really quite insignificant, but is so expensive that it requires to be very carefully watched. Though the result of broadcast sowing (as shown by the Conservator) cannot be known for some years, it is far more satisfactory; only about 2,000 acres were so treated this year. I think this should be continued on a larger scale year by year.

10. Looking to the price of bamboos, the cultivation in South Berar from seed obtained from Burmah and other circles, if it succeeds, may be of great future advantage, but it is probable that seed from the indigenous plant would be more likely to succeed there. The general cultural operations of the year have not been extensive, and the success which has attended them is, I regret, only partial. In paragraph 55 a great success in raising seedlings of the edible date is mentioned; the introduction of this tree is much to be desired.

11. On communications and buildings Rs. 11,335-7-2 have been expended, the chief work having been the repairs to the Sembadoh-Chikalda Road for the export of timber damaged by the excessive rain of August last.

12. The summary of produce removed from the forests is given in detail in paragraphs 61 to 70 of the Report, and a comparative table between the outturn of the previous year and of that under review is contained in paragraph 71. It exhibits a large falling off in the outturn of bamboos, which is said to be due to the unseasonable weather in January and to the difficulty in obtaining carts for the export traffic.

13. The revenue of the year was (Rupees 3,26,417) 3¼ lakhs, and the expenditure (Rs. 1,71,510) 1¾ lakhs.

The State forests appear to be worked at a small loss of Rs. 7,471, which is however more than recouped out of the income of unoccupied and grazing lands, which is credited here to Forests instead of Revenue; taking both together, there is a surplus of (Rs. 1,54,937) 1½ lakhs, a sum which is but small as a return from such large areas of land. Expenditure is on a very liberal scale, and it is clear that more economical management should be arrived at; an increase of nearly Rs. 2,000 on travelling allowances, besides Rs. 1,600 on the purchase of tents (see paragraph 74) and other items look as if economy would be possible in some directions.

14. The Conservator refers in paragraph 64 to the tax of three pies per head-load of grass, and does not consider that it has in any way interfered with the trade. The Deputy Commissioner and District Forest Officer of Ellichpur are of opinion that this small tax should continue. The Resident's sanction to the collection of this tax departmentally from 1st April was conveyed in your letter No. 173-R., dated 21st January 1886.

15. The praise bestowed on Mr. Ballantine in paragraph 83 of the Report is, I believe, only too well deserved. In Mr. Ballantine we lose our best Forest Officer; the way he has worked with the people in the Melghat, carrying them with him in all he has done, has, I doubt not, been the main reason for his selection by His Highness the Nizam's Government to superintend the forest work of the Hyderabad State, and I can confidently predict for him a successful and useful career there if only he be trusted as he deserves; the gain of that State is most assuredly our loss. After 19 years' continuous and hard work in an unhealthy tract of country, Mr. Ballantine is deserving of some special recog-

nition, and I would recommend that he should be permanently promoted to the third grade of Deputy Conservators (as a supernumerary of the grade if there is no present vacancy) while he is seconded. I believe special services have before been rewarded by special promotion, and no officer can have earned such distinction better than has Mr. Ballantine.

Colonel van Someren is proceeding on lengthened furlough in a few days; this is consequently the last Report he will submit for some time. The work he has done to place the forest administration on a proper footing is well known to the Resident, and I think he is decidedly deserving of acknowledgment for the same.

I have the honour to be,

Sir,

Your most obedient Servant,

LESLIE S. SAUNDERS,

Commissioner, Hyderabad Assigned Districts.

No. 658.

FROM

LIEUTENANT-COLONEL G. J. VAN SOMEREN,

Conservator of Forests,

Hyderabad Assigned Districts,

TO

THE COMMISSIONER,

Hyderabad Assigned Districts,

DATED CHIKALDA, 18*th June* 1887.

SIR,

I HAVE the honour to forward, for submission to the Resident, the Report on Forest Administration in the Hyderabad Assigned Districts for the year 1886-87.

INTRODUCTION.

Throughout the year Lieutenant-Colonel van Someren was in charge of the Circle. The Ellichpur and Wun Districts were in charge of Mr. Ballantine and of Mr. Mansuk Rai respectively during the twelve months; but in other districts, owing to officers going on, and returning from, leave, various changes had to be made, and it was not till November 1886, on the return of Mr. Prevost from furlough, that the establishment was complete, and that an officer became available for each district.

2. At the close of the year the distribution of officers was—

Lieutenant-Colonel van Someren, Conservator.
Mr. Rind, Deputy Conservator, Akola District.
" Prevost, do. Basim do.
" Ballantine, Officiating Deputy Conservator, Ellichpur District.
" Taylor, Assistant Conservator, Amraoti District.
" Russool Khan, Sub-Assistant Conservator, Buldana District.
" Mansuk Rai, do. Wun do.

3. The Kinwat Forest was on the 1st April 1886 transferred from the Wun to the Basim District Forest Officer's charge, and in November 1886 the Akola District Forest Officer took over charge from the Basim Officer of the Ghatbori Forest.

4. The meteorological conditions of the year, being somewhat unusual, will be noted here, for the revenue of the Melghat forests depends much on the seasons, and in Berar, generally, on whether the crops are good or not, and whether unseasonable rain in the cold weather stops wheel traffic over the country roads, which are almost everywhere on black cotton soil.

In 1885-86 the rainfall, as measured at Chikalda, was 71·30; that for 1886-87 was 96·54. Of this total, 93·26 inches fell between 1st April and 31st October 1886, while on the 19th August alone 16·97 inches fell, nearly 5 inches having fallen the preceding day. This greatly damaged the forest roads, necessitated many repairs, broke up the working parties, and checked the progress of new roads. Between the 11th and 12th January 1·5 inches fell, preceded by a great hail-storm. This rain was general over the Melghat and the rest of the Ellichpur District, in the plains of which district more rain fell again during January, cutting up the cross roads, and by thus stopping wheel traffic for several days spoilt the wood bazaars and told at once on the exports of wood.

from the Melghat in a month, when we ordinarily count on getting out and selling much wood. A long break in the rains did great harm to the kutki (local rice) crop in the Melghat, and unusually severe frosts in January and early February injured the dal and gram crops and put the Kurkus to great straits. On the other hand, in Berar outside of the Melghat the year was on the whole a prosperous one, and the cotton crops were good.

5. The heavy rain-fall in the Melghat was of service in encouraging much tree growth and reproduction, especially among bamboos; but, again, the fall in January interfered much with fire protection and delayed fire-path burning, so much so that in places paths were left unburnt as the season had advanced too far. This made the task of protection a peculiarly anxious one this year. The Melghat was excessively unhealthy during the cold season of 1886-87; and in Wun District too there was much fever among the foresters, of whom three good men died in the two districts.

6. Bamboos having been practically cut out in the forests outside of the Melghat, much seed was imported and sown in plots. Some of it was not good, and the whole of it came late in the year, and on the whole the results were disappointing.

7. Proposals for forming a new reserve, measuring about six square miles, at Mehdari in the north-east corner of the Amraoti District, were submitted, together with a simple working plan drawn up by the Conservator after a personal visit to the place. No orders have yet reached the department on the subject.

8. A preliminary working plan for two blocks, measuring 84 square miles, of the Bairaghar Forest, was drawn up by the Conservator, assisted by Mr. Ballantine. The field work, begun in March 1886, was completed on 15th May. The counting of rings for growth data and the working out of the various calculations were completed, and the plan submitted in September 1886. Orders on it were received in May 1887.

9. The whole of the reserves in Berar outside of the Melghat are being nursed. Specific proposals for their better management, for their better protection in certain cases, and for the regulation of light grazing in them during part of the year were approved of by the Resident and put into force.

10. Progress was made in inspecting the lands held by the department under the District Forest scheme in the Amraoti District, with a view to eventually revising the list. The Conservator this year visited several of the forests in the plains of the Ellichpur District, among which also changes will have to be made. The Wun District list will also require alteration, but this work requires time and consideration. The new Berar Forest Law styles all lands held by the department *State forests*, and under that law various changes will be necessary. The large area called hitherto *unreserved forests*, much of which is merely land not at present in cultivation, but which can be given out for cultivation by the Deputy Commissioners, should not appear on the forest lists. It is a constantly fluctuating area It will be better in every way to gradually revise the lists, and make all land held by the department forests in fact as well as in name. The word *forests* of course includes lands set apart permanently for supply of grass and grazing.

11. The Berar Forest Law, 1886, appeared in the *Hyderabad Residency Orders* of 15th November 1886, and by the middle of the following March the Conservator submitted his draft rules under that law. The law itself was also translated into Marathi in his office and submitted to the Secretary (for Berar) to the Resident.

12. The results of fire protection were that 653,602 acres (about 1,021 square miles) were successfully protected at a cost of 1·71 pies per acre, or Rs. 5-11-5 per square mile. It ought to have been pointed out last year, and is now pointed out, that the increase of mileage of forest roads in the Melghat neces-

sarily adds to the expenditure on fire protection. Although the area protected is not increased, each additional mile of road means two miles more of fire-paths. The average cost per acre is thus raised, and this should be remembered in drawing comparisons. During the two years 1885-86 and 1886-87, 55 miles of new roads opened in the Melghat added 110 miles of fire-paths to be cut and burnt.

13. One very striking and satisfactory result of continued protection from fire is that the stock of bamboos now standing in the Gugumal Forest, and more especially in the Bairaghar forest, which has been longer protected, has improved vastly in quality. The bamboo throughout the Melghat is *Dendrocalamus strictus*. In the unprotected forests the clumps show culms of small girth, of which about 100 go to the bullock-load. This used to be the load of bamboos from the Bairaghar forest 12 to 18 years ago. The bamboos in that forest have gradually increased in bulk till a very ordinary load for a bullock is now 30 to 40. This, there can be no doubt, is due entirely to immunity from fire.

14. The reproduction of bamboos in the Melghat this year was touched upon in paragraph 5. It is very striking. Fine large culms have been thrown up on all sides. The heavier rain-fall doubtless aided this, but it is so remarkable this year that the thought suggests itself that bamboos have a short cycle, at the close of which they send up more and larger culms than in the component years of that cycle.

15. It may be noted here that some isolated clumps of bamboos in both Gugumal and Bairaghar Forests are seeding this year. About twelve years ago the bamboos in the east of Bairaghar Forest seeded over an area roughly estimated at 50 square miles. Apart from that, Mr. Ballantine has, in the last nineteen years, seen no general seeding of the bamboos in the Melghat. Nineteen years ago they were being cut, and, though smaller in girth and of poorer quality than now, they were apparently not young. A widespread and general seeding and consequent dying down of the bamboo stock now on the ground may thus be looked for ere very long. This must be watched, and should this threaten to be the case, the bamboos should be got rid of as fast as possible, for if they die standing, they will be of no use to any one. If this seeding comes on all at once, it will make a serious reduction in the revenue, and fire protection will be very difficult. But if fires are kept out, the new clumps will probably be very much finer than those we now have; for they will have sprung from seedlings nourished by rich soil, and will never have been touched by fire. The seed now on the clumps is being collected for distribution to the five other districts of Berar where bamboos are practically non-existent.

16. The proposal to farm the nakas along the line of the Melghat Hills was, in deference to the expressed objections of the Government of India, abandoned by the Resident at the request of the Conservator. The introduction of saw mills into the Melghat, referred to in paragraph 67 of the Report for 1885-86, was not found to be feasible. A well-to-do native gentleman of Ellichpur City is considering a plan for starting saw mills there to saw up wood from the Melghat, and lately visited Bombay to look at the machinery required. But some little time has now passed since he last spoke to the Conservator on the subject.

17. The financial results of the year were: gross revenue Rs. 3,26,147, gross expenditure Rs. 1,71,510; surplus Rs. 1,54,937, or Rs. 6,075 less than that of last year; but see paragraphs 74 and 76.

18. The Jubilee of Her Majesty the Queen was celebrated in a small, but hearty fashion, at Sembadoh in the Melghat, where 325 Kurku and Gond men and women from the forest villages sat down on the 20th February to a good feast provided for them by two or three of the Forest officers. The dinner was followed by fire-works, and then they danced round their camp-fires the whole night through till dawn.

19. The Conservator, including his deputation to Dehra Dun to attend the Forest Conference, was in camp seven months and a half. He came in to head-quarters early in March owing to bad health after fever.

CHAPTER I.—Area and Boundaries.

20. The subjoined statement shows the area of forest lands, the classification being that lately ordered by the Government of India in its Circular No. 4-F. of the 23rd April 1887, Department of Revenue and Agriculture:—

Description of Forests.	Area in square miles.				Percentage of forest area to area of province.
	On 1st April 1886.	Added during the year.	Excluded or transferred to other heads.	Area on 31st March 1887.	
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	
(a) Reserved Forests ...	1,110	...	3	1,107	6·9
(c) Village Forests ...	436	...	1	435	2·7
(b) Unclassed State Forests and Waste Lands ...	2,796	11	208	2,599	16·2
Total ...	4,342	11	212	4,141	25·8

21. In the Gugumal Reserve 39 acres were made over to the Public Works Department for a road, in Gerumatergaon 45 acres to rectify a boundary, in Kharad Reserve 603 acres excluded by correction of areas wrongly calculated: and in Lonbehel Reserve 250 acres were made over to the villagers of Ghonsar, who were much inconvenienced by the forest line actually touching the backs of some houses.

In *village forests* the one square mile excluded is due to 207 acres thrown out or transferred to *unclassed forests* in six different places, and to re-calculation of areas, while 47 acres were added in Wun District.

In *unclassed forests* the exclusion of 208 square miles is due mainly to land given up for cultivation, 79 square miles being given up in all in Buldana District, 44 in Basim, and 74 in Wun District, while 11 square miles in all were added to the lists.

22. Towards the close of the year the boundary between the Central Provinces and Berar was rectified by a commission of officers. An insignificant portion of the Bairaghar forest was made over by Berar.

23. In the Melghat 325 boundary cairns and pillars were repaired and numbered in Bairaghar forest at a cost of 285 rupees, including cost of new zinc plate numbers. All the marks are in good order, and the pillars were this year painted with white silicate paint. In Gugumal forest 15 pillars and marks were repaired on the model of those in Bairaghar, which is the better of the two. The survey marks round forest lands in the plains of Ellichpur District were kept in good repair.

24. In the *Wun District* five intermediate pillars were put up in the Kelapur Reserve, and one in Tiwsala; and 454 survey marks round forest lands were repaired. The boundary-marks generally are in good order.

25. In the *Basim District* all the boundary-marks round the reserves are in good order. A few survey marks round the district forests were repaired, and the demarcation is in good order.

26. In the *Amraoti District* the marks and pillars round the Chirodi Reserve and the rumnas are all well kept up. But little progress was made in putting the survey marks round the other forest lands into order. The blame for this falls on the District Forest Officer, who seems to have been wanting in method and somewhat lax in pushing the work, and on the Taluk Tahsildars, who did little to aid him.

27. In the *Akola* and *Buldana Districts* the boundary-marks round the reserves are in good order. The repair of survey marks round other forest lands was not carried out to any extent, but as under the new Forest Law many alterations will be made in these lands, the matter is of less importance. Still the marks round rumnas should have been better looked after.

CHAPTER II—Surveys, Working Plans and Annual Plans of Operations.

28. The Superintendent, Forest Survey Branch, has furnished the following note:—

"The Melghat Survey Party continued in the field until the 15th June and plane-tabled a total area of 403 square miles, *viz.*, on the 4″ scale 162 square miles, and 241 square miles on the 2″ scale. The area triangulated in advance was 410 square miles, and the area traversed was 458 square miles; fixing respectively 461 trigonometrical stations and 1,953 traverse points.

"The 4″ work was confined to the richer tracts of the Melghat, and comprised a contoured cadastrel survey, and the 2″ work comprised a contoured survey, chiefly of forest tracts.

"The cost per square mile of the season's work, estimated on the area planetabled, was for the 4″ survey Rs. 69, and for the 2″ survey Rs. 49, against Rs. 78 and Rs. 57 respectively for the previous year.

"The Melghat Survey Party took the field again in the middle of November 1886, and field work is still in progress; hence it is only possible at present to give complete details of the work up to 30th April 1887.

"A party under Mr. Litchfield has been employed throughout the field season in surveying the forest tracts of Gugumal and Bairagarh on the 2″ scale, and two parties under Messrs. Chill and J. Marten have been employed in surveying, on the 4″ scale, the Sipna and Amner valleys. A party was employed in triangulating the south-west corner of the Melghat Taluk including the Bingara jagir, and a traversing party was employed in the same tract of country, whilst a central computing office was maintained at Chikalda to compute and plot the field work as it progressed.

"The total area plane-tabled up to 30th April is 337 square miles, of which 185 square miles are on the 4″ scale and 152 square miles are on the 2″ scale. Three hundred and eighty-three square miles have been triangulated, and a sufficient area has been traversed to provide the planetablers with ample work. It is not possible at this stage to give the cost per square mile of the season's work, but this will be reported in the next annual progress report of the forest surveys.

"The whole of the Melghat is now completely triangulated as well as the whole of the Bingara Jagir, so also is the topographical survey of the Gugumal and greater part of the Bairaghar Reserves completed. The settlement of the provincial boundary common to the Melghat and Betul Districts, which has for some time past been pending, was finally settled and demarcated last March, and the survey of the correct boundary was at once completed."

29. The preliminary working plan for two blocks of the Bairaghar Reserve has been noticed in paragraph 8. It showed that the supply is greater than the demand, and that the advance reproduction of teak and of all kinds of woods is good; that, of teak alone, nearly 96 per cent. is in the 3rd class, and is much of it well-grown, promising stock; that in the Melghat, a teak seedling requires 50 years to attain a girth of 54 inches, and that 50 years more must pass before it touches 72 inches; that the quality of the old stock on the ground is much of it bad, owing to bad treatment, neglect, and fires in former years, and that it should be cut out in advance of the demand as a pure matter of forestry. The stock of bamboos is ample, and the quality throughout the Melghat reserves is improving.

CHAPTER III.—Protection and Improvement.

(1)—*Establishments.*

30. The controlling staff has already been mentioned in the Introduction. Of the subordinate staff, two foresters—one of them a very good man—died of virulent fever in the Melghat, and another good man died of fever in the Wun District. Two bad workers in Basim and one in Wun were dismissed, and one in Buldana, who was of little use, was allowed to resign. Fever everywhere

hampered work, and the Conservator finds it difficult, now that men with better education are demanded, to get such for the work. The educated Berar Brahmin is, as a rule, useless in a forest when hard work has to be faced; the ordinary kunbi, or ryot, does not care to enter the service. Mahomedans from various parts and Hindus from the North-West Provinces and Oudh work well, but they usually possess but little book-learning. To provide for the Rangers of the future, Foresters who are both educated and hard-working must now form part of the establishment. How to get them is a question yet to be settled. It will probably be necessary to raise the pay of these men.

31 One man, Pandurang Narayen, was sent to the Forest School in June 1886, and is well reported on by the Director. The Forester who was dismissed in Wun (Moréshwar Pandrinath, a Brahmin,) was on probation, and was intended to go to the Forest School in June 1887, but though well educated, he proved himself both a bad worker and untrustworthy.

32. One Ranger has been lent to the Civil Department for a lengthened period to demarcate villages in the Melghat ahead of the survey; and towards the close of the year Ranger Bukan, being well acquainted with the ground to be gone over, was lent for a short while to the Commission that assembled to settle the boundary between the Melghat and the Betul District of the Central Provinces. The forest guards as a rule worked well, but suffered much from fever.

(2)—*Legislation and Rules.*

33. Unaltered during the year. The Berar Forest Law was printed in *Residency Orders* in November 1886, and draft rules were submitted for sanction.

(3)—*Breaches of the Forest Law.*

34. Full details will be found in Form No. 50. The following table summarizes them:—

Districts.	Prosecutions.				Convictions	Acquittals.	Corresponding at close of 1886-87	Percentage of convictions to prosecutions.
	Pending from 1885-86.	New of 1886-87.	Total for trial, 1886-87.	Concluded in 1886-87.				
Ellichpur ...	...	114	114	114	83	31	...	72·80
Amraoti ...	1	75	76	73	57	16	3	78·08
Wun ...	...	21	21	21	18	3	.	85·71
Basim ...	...	31	31	31	27	4	...	87·09
Buldana ...	1	49	50	48	39	9	2	81·25
Akola ...	1	116	117	117	85	32	...	72·64
Total ...	3	406	409	404	309	95	5	76·48

The new cases for the year were 16 less than in 1885-86.

35. The proportion of convictions to prosecutions was 6·18 per cent lower than the figure of the previous year The Ellichpur and Akola Districts show a bad percentage, and the large increase of cases in Akola (117 against 47) is not yet explained. It is reported that most of them were for illicit felling outside the reserves, and that they were trifling. It is satisfactory that the offences in the reserves fell from 65 to 36. The Amraoti Officer complains that one of the Native Magistrates threw out cases which occurred in district forests set off by survey marks. These are authorized marks, and as they are sufficient in law to

protect a private individual against trespass, it is hard to see why they are not to protect Government. In future such cases will be appealed against. There is still a tendency among some of the Magistrates to punish so lightly that the effect is *nil*. The punishment meted out in one case, in Buldana, where three boys, the oldest 15 years of age, deliberately set fire to a reserve to enable them to get honey out of a tree, was brought to the notice of the Deputy Commissioner, who took up the whole matter and insisted on his Magistrates paying proper attention to the interests of Government in this direction.

(4)—*Forest Fires.*

36. The subjoined table shows the results of fire protection. As this report has to be submitted somewhat earlier than usual this year, the reports of failures are not carried up to 30th June. But as the fire watchers are kept on till that date, as no more paths have to be burnt, and the occurrence of a fire after the rains have begun to fall is rare, the figures are now entered. It is improbable that they will require any correction. Should any be needed, it will be communicated in a separate note on or about 5th July:—

Districts.	Years.	Protected successfully.	Failures.	Cost.
				Rs.
Ellichpur	1886	386,581	551	2,757
	1887	386,405	688	2,448
Amraoti	1886	11,771	1,300	307
	1887	11,591	1,480	186
Wun	1886	126,648	23,508	2,271
	1887	85,326	11,419	1,980
Basim	1886	53,981	2,983	340
	1887	79,287	1,000	926
Buldana	1886	59,709	...	256
	1887	59,582	82	251
Akola	1886	2,276	...	...
	1887	31,411	100	42
Total ...	1886	640,966	28,312	5,931
	1887	653,602	14,769	5,833

37. The total area placed under protection was smaller this year by 937 acres. The failures were less than in the previous year by 13,573 acres, and the cost was less by Rs. 98 The expenditure per successfully protected acre was 1 71 pies, or Rs. 5-11-5 per square mile, against Rs. 5-14-0 per square mile in 1886. Owing to transfers of forests from one division to another, Basim and Akola had more, and Wun less, to protect.

38. The Raipur block again escaped all fires. One fire, burning 670 acres, occurred in the west of the Bairaghar Forest. As it was not near any road or fire-path and no work was going on in the locality, it was for some time thought that dakaits had caused it, for a dakaiti took place not far off two days afterwards, and the fire was on the line down which the men had come. But against this is the fact that dakaits, and outlaws generally, would be careful not to fire a forest as it is against their interests to do so. Mr. Ahmed Ali, Sub-Assistant Conservator, kept his ears open, and some weeks afterwards the cause of the fire was traced to some men and boys who had wounded a stag and followed it into the reserve. There they smoked and accidentally set the grass on fire and fled. Two were afterwards caught and tried and punished by the Deputy Commissioner. Another, who got across the border and is still away from Berar, is still at large. He will be caught some day. The local establishment deserve great credit for the way in which the fire was got under. A second fire, burning 18 acres, occurred in the extreme west of the Bairaghar Reserve. Its origin has not yet been traced.

39. There was one fire in Kinwat Forest in Basim District, which extended over 1,000 acres. The ranger was laid up at the time, having been kicked by an elephant, and the guards employed in burning the fire-path unfortunately set the forest on fire.

40. In Buldana District there was one fire, burning 30 acres in Amdari Reserve, caused by boys taking honey, and another, which burnt 50 acres, was caused by the carelessness of a guard while burning fire-paths. He was dismissed the service. A third fire burnt one acre. This was caused by a panther appearing among the men engaged on fire-path work. But the beast was frightened off and the fire got under at once. In Gerumatergaon Reserve one acre was set fire to by lightning, but was extinguished by the rain that followed.

41. In Amraoti District there were two fires, burning in all 153 acres, both caused by high winds springing up during the burning of fire-paths. In the Amraoti Hills rumnas, which are protected, 1,327 acres were burnt in all by three fires on the 20th January, 1st February, and 14th May. A large number of grass-cutters is employed in taking out grass during these months, and it is supposed that the fires were caused by their carelessness. The establishment is small, and though these fires were unfortunate, the Conservator cannot altogether hold it to be in fault. Ready aid was afforded by villagers and others in putting out the fires.

42. The one fire in Akola was in the Ghatbori Forest, when 100 acres were burnt owing to want of due care on the part of a guard who was burning a fire-path. He was punished at once.

43. In the Wun District there were 18 fires in all, burning 11,419 acres; the smallest burning 5 acres, the largest spreading over 3,575 acres. Of the 18 fires, one was over 3,000 acres, two were between 1,000 and 1,400 acres, five between 500 and 1,000 acres, five between 100 acres and 500 acres, one of 90 acres, and four under 50 acres each. Three, burning 1,767 acres, were caused by fire crossing an imperfectly-burnt outer fire-path; two, burning 1,242 acres, while burning fire-paths; the origin of three fires, which burnt over 4,980 acres, is unknown. The largest fire of all, 3,575 acres in the Kharad Forest, which is the poorest of all the South Berar Reserves, being little else than grass, was one of these three. Eight fires, burning 3,604 acres, of which again 1,184 acres were in Kharad, are laid at the door of shikaries and villagers, and two are supposed to have been caused maliciously. It is true that in the Wun District the Deputy Commissioner has issued a very large number of gun licenses, and that in the district there are many pardis (or snarers) and shikaries who find our fire protection operations inconvenient to them, but making all allowance for this, it is unsatisfactory that so few fires have been brought home to the culprits. Of the 11,419 acres burnt in all, 7,368 acres were in one forest, Kharad, which, as already stated, is little more than grass.

44. Reports from the Akola and Buldana Districts state that no fires took place in the forest tracts not specially protected. The reports from the other four districts are either silent on the point, or else state that no fires have been reported.

But the Conservator has himself seen fires in the open forests during the past year, and so he thinks it safe to content himself by offering as the nearest practicable estimate the figures given last year, *viz.*:—

Woods	14,532
Rumnas	20,592
Grazing lands	890,110
Total ...	925,234

(5)—*Grazing and Fencing.*

45. No change was made in the grazing sales during the year. The farming of the Government grazing lands in the Akola, Buldana, and Basim Districts has ceased since the 1st April 1887, and during the current year the grazing will be sold on passes.

46. Light grazing was again allowed in the reserves. Special reports on the results of this system were called for and submitted. They showed that the supervision has been good, that reproduction of trees has been aided by light grazing, that the graziers generally behaved well, for browsing was nowhere noticed and but little lopping. The Conservator sees no reason to alter his views on this subject, the more so that, when the matter was fully discussed at the Forest Conference at Dehra Dun in October last, he heard no arguments which showed him that the utterers of them spoke from experience of the system. He fully allows that it is not one which will suit all sorts and conditions of forest. His own experience in other provinces shows him that, but it is suited to the present condition of many of the forests in Berar. The District Forest Officer, Wun, reports that light grazing may now be stopped in the small reserve at Tiwsala, and this has been approved of by the Conservator; and in other districts certain portions of the reserves will also not be grazed over in the rains of 1887.

47. The number of cattle grazed for four months in the reserved forests of five districts (Ellichpur not being counted) was 60,654 over 319,180 acres, which gives about 5¼ acres per head, and the revenue was Rs. 11,398.

48. The following statement shows the number of cattle for the grazing of which the department was paid directly. But as the grazing was sold on auction to contractors in parts of four districts, these figures do not show the number that actually grazed on Government forest lands:—

District.	Camels.	Buffaloes.	Cows and bullocks.	Sheep and goats.	Total.
Ellichpur	66	15,784	92,906	57,192	165,948
Amraoti	3	29 070	113,211	59,686	201,970
Wun	...	46,171	293,791	86,851	426,813
Akola	...	1,046	12,993	312	14,351
Basim	...	423	8,510	...	8,933
Buldana	...	1,151	11,125	...	12,276
Total ...	69	93,645	582,536	204,041	830,291

49. The Executive Engineer, Melghat Roads, has furnished the following statement of progress made in works for storing water for cattle:—

Names of tanks.		Remarks.	
Telghat—in Ellichpur District	...	Completed in 1886-87.	
Tekra Do.	...	Do.	do.
Pastali Do.	...	Do.	do.
Pipalkhera Do.	...	Do.	do.
Dhargar Do.	...	Do.	do.
Mondra Do.	...	Just begun.	
Katoola Do.	...	Do.	

(6)—*Natural Reproduction.*

50. The continued success that has now for many years followed fire protection work is showing itself in the fact that natural reproduction throughout Berar, aided by light grazing outside of the Melghat, is almost everywhere most encouraging. There are some parts of the forests which, owing to dry and hungry soil or to very precipitous and stony hill sides, will never be worth much, but from all districts the reports are very cheering. The Conservator spent several days

in the northern and central parts of the Gugumal forest, and, after a careful inspection, is able to say that the natural reproduction here, aided to a small extent by sowings, is very good. In many parts the hill sides and valleys are thickly clothed with young teak, other valuable trees and bamboos.

The report from Buldana states that the anjan (*Hardwickia binita*) bore no seed this year.

(7)—*Artificial Reproduction.*

51. The simple working plan for the Patroat Forest in Wun provides for the regular planting up of 292 acres at 50 acres a year with mangoes, hirdas, mohwas, and bamboos. Work was begun after the Resident's orders had been received. They came a little late. The work actually done by the 31st March was the clearing of 50 acres of ground; the digging of pits, each of one cubic yard, at regular distances of 15 feet from centre to centre, over 17 acres; and the formation of nurseries for the planting to be done during 1887-88.

(8)—*Cultural Operations.*

52. In the eighth paragraph of its Review on the Report for 1885-86, the Government of India evidently desires information on the results of broad-cast sowing. The Conservator's own experience during many years in this and other circles leads him to say that such results may frequently not appear for three or four seasons after the sowing of the seed. His experience is confirmed by the two following facts, a number to which many could be added, but it is needless to do so: (*a*) There is now at Saoli, in the Bairaghar Reserve, a very fine young growth of teak sprung from seed sown in 1874. The canopy in many parts is complete. In 1878 Sir D. Brandis (then the Inspector General of Forests) ordered this area to be taken off the returns as a failure. (*b*) In paragraph 87 of the Central Provinces Forest Report for 1885-86, which reached the Conservator three days ago, he finds the following words:—" In the Saonligarh Reserve some of the sowings made in former years and which were treated as failures now exhibit fair results, and in one locality it was observed that the seedlings had advanced almost beyond the risk of injury from cattle " Thus, though the Conservator may not yet be able to point to much *visible* result of the sowings ordered by him, he is convinced that, provided that areas are carefully selected and as carefully sown with seed of trees suited to the locality, this cheap and natural way of aiding reproduction will eventually prove to have been most valuable. During the past twelve months he has laid great stress on the work being carefully done rather than hurried over.

53. In the Ellichpur District 245 acres were carefully sown up with hirra (*Terminalia chebula*) seed. Very little has yet germinated, but a few of the seeds were dug up and found to be sound and good. Much of it will probably germinate during 1887. In the Basim District 302 acres were sown with teak seed in three different localities. In Amraoti District 478 acres were operated on, and 201 acres in Akola In Wun 716 acres were sown up, and in Buldana 83 maunds of seed were sown broad-cast, but the area—5 acres—over which the work was done is not given correctly The returns thus show 1,947 acres, an area which is smaller than it should have been, and this work must be energetically pushed on in all the districts.

54. Bamboo seed was obtained from other circles, most of it from Burmah, and attempts made to reproduce this useful article in South Berar. Directions as to the way in which it was to be sown—in *units* each equal to one-tenth of an acre, as many being put together as the ground would admit The seed was late in reaching Berar, and unfortunately a long break in the rains occurred after it was sown out, so that the results are on the whole disappointing. 396 units in all were sown up in Berar outside of the Melghat, about one-half of which showed successful results. It is however perfectly possible that much of the seed is lying dormant and will come up next year. Some of the Burmah seed was sent to the Melghat, where it was sown with great success over eight acres. Much seed was distributed to ryots and to officers of other departments. The District Superin-

tendent of Police at Basim, who took great pains in the matter, raised a large number of Burmese bamboos in his police lines.

55. In Ellichpur Cantonment Mr. Ballantine succeeded in raising upwards of 10,000 seedlings of the edible date (*Phœnix dactylifera*), the seeds of which were procured from Bushire by the Deputy Commissioner. The trees will be placed out hereafter all over the district, so as to try and introduce this valuable tree into Berar, where in many spots the *Phœnix campestris* grows well.

Some rattan cane seeds (*Calamus rotang*) were got down from Dehra Dun, and sown in a suitable locality in the Bairaghar Reserve at Suridah. It germinated, but afterwards died off.

(9)—*Communication and Buildings.*

56. In the Melghat the heavy fall of rain on 19th August greatly damaged the Sembadoh-Chikalda road, carrying away large portions of it on steep hill sides. The biggest slip was over 500 yards in length. All was put to rights before the close of the year, as was also the damage done on six other roads. The new Raipur-Patia road was commenced, but only six miles of it were got through, and this so late that the expenditure did not appear in this year's accounts. The road gangs were much broken up owing to the work being, perforce, so much distributed, and progress made was necessarily slow and supervision difficult. Repairs of roads alone cost Rs. 7,784 this year. A new tannah was built at Kolkaz; repairs to forest tannahs and rest-houses were carried out at a cost of Rs. 228, and petty repairs to wells cost Rs. 47. A further bill for Rs. 173 for the big well at Sembadoh was presented by the Public Works Department and paid.

57. In Amraoti District a rest-house costing Rs. 1,605 was built at Pohora, and two tannahs at Rs. 50 each.

58. In Basim District a new tannah was built for Rs. 38, and repairs cost Rs. 10 more.

59. In Wun District an elephant-shed and a hut at Yellabara cost Rs. 52. The repairs to the Patroat rest-house were commenced, but will appear in next year's report.

60. The District Forest Officer, Buldana, carefully inspected the Gerumatergaon Forest and submitted rough plans for roads through it. The difficulty is to get out of the forest, which is on very precipitous hill sides towards the surrounding country.

CHAPTER IV.—Yield and Working.

Departmental Operations.

61. In the Bairaghar Reserve 3,472 trees of various kinds, or 2,830 more than in the preceding year, were cut over flush with the ground at a cost of Rs. 647. These were all improvement fellings, and were very well carried out. Many trees were found to be unsound, especially lendia and dhaura (*Lagerstrœmia microcarpa* and *Anogeissus latifolia*,) though often, to all outward appearance, they were sound.

Removal of Produce by Purchasers.

62. The whole of the 3,472 trees were sold to purchasers, who bought them for Rs. 7,194 and removed them at their own expense.

63. The following table shows the quantities of forest produce removed and paid for at the nakas in Ellichpur District. The new nomenclature is used in

classifying forests, and two added columns compare the totals for 1886-87 and 1885-86 :—

Produce.		Bairaghar reserve.	Gugumal reserve.	Melghat unclassed state forests and waste lands.	Village forests.	Total for 1886-87.	Total for 1885-86.
Teak ...	C. ft.	21,145	121	149,762	...	171,028	139,379
Other wood ..	„	8,071	17	137,614	...	145,702	136,642
Firewood ...	„	...	...	130,515	728	131,243	153,955
Charcoal ...	„	...	...	124,339	...	124,339	114,380
Bamboos ...	No.	628,705	542,522	853,000	...	2,024,227	2,638,658
Grass ...	Tons	...	2	3,960	...	3,962	2,213
Lac ...	„	½	...	6	...	6½	12⅚
Teak leaves ...	„	...	...	274	...	274	263
Roots and fruits...	„	115	1	873	...	989	704⅔
Gums ...	„	...	...	1	...	1	3½
Miscellaneous ...	„	...	...	21	...	21	11⅓

64. The increases and decreases can thus be seen at a glance. Timber, grass, and roots and fruits show a considerable increase and counterbalance the large decrease in bamboos. This decrease was due partly to the unseasonable weather in January already spoken of, and also to the fact that a large number of carts were employed in carrying more timber out of the Melghat for the general public and for the piles of the new bridge over the Purna. The Public Works Department paid well for carriage, and this helped to keep down the bamboo traffic. The royalty of 3 pies per head-load of grass put on during the year certainly did not stop the demand, for it rose by more than 1,700 tons.

65. In the Amraoti District the actual quantity removed from the forests cannot be given as the revenue is raised partly by money paid in by contractors who farm the dues of the greater part of the Amraoti Hills Reserve and of the Karanja tract. This was explained last year. The naka sales are compared below. The items vary, but the total is almost the same for the two years :—

	1886-87.	1885-86.
Amraoti	7,431	8,650
Karanja	2,235	1,050
Total ...	9,666	9,700

The quantities removed on passes were as below :—

		1886-87.	1885-86.
Timber	Cub. ft.	...	305
Firewood and charcoal ...	„	19,288	11,337
Grass ...	Tons	952	1,641
Miscellaneous ...	„	43	10

The Chirodi Reserve was not opened to grass-cutting till late in the year, and accounts for most of the decrease under this head.

66. In the Akola District the following produce was removed from the reserves :—

		1886-87.	1885-86.
Firewood and charcoal ...	Cub. ft.	550	17,192
Grass	Tons	39	...

No babul buns were sold this year.

67. In Buldana District the following produce was removed from the reserves :—

		1886-87.	1885-86.
Timber	Cub. ft.	1,134	700
Firewood	„	7,536	6,697
Grass	Tons	732	507

The quantities removed from the other forest lands are given for 1886-87, but were not available for 1885-86—

Timber	C. ft.	16,772
Firewood	„	89,894
Minor produce	Tons	215

68. In Basim District much was sold by auction. The quantities sold on passes were—

		1886-87.	1885-86.
Timber	Pieces	227	C.ft. 112
Firewood	C. ft.	7,931	8,174
Bamboos	No.	775	100
Grass	Tons	655	317

69. In Wun District the quantities were—

		1886-87.	1885-86.
Timber	C. ft.	14,255	3,640
Firewood	„	3,395	1,204
Charcoal	„	2,198	84
Bamboos	No.	97,734	76,540
Grass	Tons	8,392	3,963
Minor produce	„	1	...

Of the quantities for 1886-87, the following were extracted from the reserves:—

Timber	C. ft.	185
Firewood	„	217
Bamboos	No.	43,559
Grass	Tons	4,999
Minor produce	„	1

70. With reference to the remark made by the Government of India in paragraph 11 of its Review on the Report for 1885-86, it is here pointed out that in Wun District, while the number of cattle admitted to graze in the reserves was—

In 1886-87	16,749
„ 1885-86	11,223

yet the sales of grass from the reserves were in 1886-87 4,999 tons, or 1,000 tons more than the total sale of grass for all lands in 1885-86. This shows not only the great demand existing now in Wun District, but also that what is wanted in some of the other districts is more careful supervision. The Wun District Forest Officer, Mr. Mansuk Rai, deserves great praise for his good work in this direction, and the Conservator commends this remark regarding supervision to the notice of the other District Forest Officers in Berar outside the Melghat.

71. *Summary of produce removed from the forests.*

		1886-87	1885-86.
Trees (Melghat) ...	No.	3,472	642
Timber pieces	„	227	...
Teak	C. ft.	171,028	144,136
Other kinds	„	177,904	136,642
Firewood and charcoal ...	„	386,775	313,023
Bamboos	No.	2,122,741	2,715,301
Grass	Tons	14,732	8,641
Roots and fruits ...	„	989	705
Lac	„	6	12½
Teak leaves ...	„	274	263
Gum	„	1	3½
Miscellaneous	„	20	21½

The only decreases are under bamboos (already accounted for) and under gum and lac.

CHAPTER V.—Financial Results.

72. This report was actually put up for despatch to the press, the figures for the year being taken from those in the Conservator's office as the summary

for March 1887 and the Comptroller's figures for 1886-87 had not reached the office, when a cover from the Comptroller's office brought in the long looked-for figures. These latter paragraphs were therefore kept back, and the figures now given are in accordance with corrected ones, the differences being very small.

73. The gross revenue was realized from the following sources :—

	1886-87. Rs.	1885-86. Rs
Timber	76,897	71,872
Firewood and charcoal	23,738	26,046
Bamboos	31,359	28,736
Grazing and fodder grass	1,72,249	1,72,254
Other minor produce	18,785	15,235
Confiscated wood, &c.	2,134	1,642
All other sources	1,285	4,262
Total ...	3,26,447	3,20,047

The revenue on bamboos was higher with a smaller yield; this is owing to the fact that the higher royalty charged, Rs. 1-8-0 per 100, was in force for 12 months, and not, as in 1885-86, for part of the year only.

74. The gross expenditure was—

	1886-87. Rs.	1885-86. Rs.
A.—Conservancy and Works	64,481	63,186
B.—Establishment	1,07,029	95,849
Total ...	1,71,510	1,59,035

The increases were Rs. 21,385; the decreases, Rs. 8,910. Of the former, the main heads were Rs. 1,448, arrears paid to village officials; Rs. 1,225 paid for the keep of elephant transferred to the Forest Department by Deputy Commissioner, Wun; Rs. 1,597, purchase of new tents on formation of new district charges; Rs. 2,630 on plantations; Rs. 885, refunds of long past years made in Akola District under orders of the Resident; Rs. 1,979 in travelling allowances, as all officers were kept much on out-door duties to the benefit of the department. An increase of Rs. 6,777 appears under officers' salaries; a small part only of this is due to acting allowances, while Rs. 3,875 is the sum debited to the budget by the Comptroller as furlough pay paid to Mr. Prevost while on furlough in England. *To this debit the Conservator has objected, and has begged the Resident to refer the matter to the Government of India. It is, he contends, both unusual and wrong to debit the Forest Department in particular with furlough allowances of an officer.* No orders have yet been received to his reference. The other increases and the decreases call for no special remarks.

75. The revenue and expenditure of the different classes of forests were :—

Class of Forests.	Revenue.		Expenditure.		Surplus.		Deficit.	
	1885-86.	1886-87.	1885-86.	1886-87.	1885-86.	1886-87.	1885-86.	1886-87.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
(a) Reserved Forests .	54,331	57,223	62,470	64,694	...	...	8,139	7,471
(c) Village Forests	1,72,605	1,68,962	45,049	51,182	1,27,556	1,17,780	...	...
B. Unclassed State Forests and Waste Lands ...	93,111	1,00,262	51,516	55,634	41,595	44,628	...	...
Total ...	3,20,047	3,26,147	1,59,035	1,71,510	1,69,151	1,62,408	8,139	7,471
			Deduct deficit ...		8,139	7,471		
			Net surplus ...		1,61,012	1,54,937		

The figures have been placed as carefully as practicable under their proper heads as regards class of forest that yielded revenue or called for expenditure.

76. The net surplus was Rs. 1,54,937, or nominally Rs. 6,075 less than in 1885-86. But when the debit for Mr. Prevost's furlough allowances is removed, as the Conservator trusts will be the case, the net surplus will prove to be but Rs. 2,200 less than for the preceding year, although the expenditure for the year under report was heavier by Rs. 12,475.

77. The financial results by divisions are now given :—

		Revenue.	Expenditure.	Surplus.	Deficit.
		Rs.	Rs.	Rs.	Rs.
Direction Office		5	25,159	...	25,154
Ellichpur District	Office	19	16,663	...	16,644
	Reserved Forests ...	26,457	18,327	8,130	...
	Village Forests	3,662	1,019	2,643	...
	Unclassed State Forests and Waste Lands	98,948	28,877	70,071	...
		1,29,086	64,886	80,844	16,644
Amraoti District.	Office	227	7,774	...	7,547
	Reserved Forests ...	10,852	2,875	7,977	...
	Village Forests ...	44,909	4,862	40,047	...
	Unclassed State Forests and Waste Lands	1,202	...	1,202	...
		57,190	15,511	49,226	7,547
Akola District ...	Office	10	5,862	...	5,852
	Reserved Forests ...	1,858	1,237	621	...
	Village Forests ...	19,400	4,288	15,112	...
		21,268	11,387	15,733	5,852
Buldana District.	Office	...	1,313	...	1,313
	Reserved Forests ...	4,553	2,829	1,724	...
	Village Forests ...	21,164	3,397	17,767	...
		25,717	7,539	19,491	1,313
Basim District ...	Office	15	16,785	...	16,770
	Reserved Forests ...	5,961	5,558	403	...
	Village Forests ...	18,859	2,350	16,509	...
		24,835	24,693	16,912	16,770
Wun District.	Office	61	6,715	...	6,654
	Reserved Forests ...	7,429	7,111	318	...
	Village Forests ...	60,856	8,509	52,347	...
		68,346	22,335	52,665	6,654
	Total ...	3,26,447	1,71,510	2,34,871	79,934
			Deduct deficit ...	79,934	
			Net surplus ...	1,54,937	

78. The receipts and charges of the year exhibited under budget heads were :—

Heads.	Receipts.		Charges.	
		Rs.		Rs.
I. Departmental timber operations.	I ...	...	I	...
II. Other revenue ...	II, III, and V.	3,26,447	II, III, V, IX, 75 per cent., VI, and B.	1,20,727
III. Formation, protection and improvement of forests.	...	...	VII, VIII, 25 per cent., VI, and B.	50,783
	Total ...	3,26,447	Total ...	1,71,510

Chapter VI.—General Remarks.

79. Advertisements in several newspapers calling attention to the wood on sale in the Melghat stimulated the demand to a certain extent, and the revenue of the Melghat forests should now rise steadily, as it has been decided by the Conservator that improvement fellings should be more vigorously pushed on. The sanction accorded to the preliminary working plan of two blocks of forest will result in bringing in more revenue. The revenue for the Melghat for the first two months of 1887-88 is higher than it has ever been before.

80. With few exceptions, the subordinate establishment, both out-door and in-door, worked well, the senior rangers especially well.

81. The Deputy Commissioner, Basim District, writes in high terms of the good work done by Mr. Prevost, and this has been brought to the notice of the Resident in a separate communication. The Conservator had occasion frequently to notice the useful and interesting diaries and the good work, especially in fire protection and in inspecting work, done by Mr. Prevost.

82. Mr. Mansukh Rai, who was in January 1887 made a permanent Sub-Assistant Conservator and promoted to Rs. 200 a month, worked thoroughly well in Wun District as this report shows. His name, too, has been separately brought to the notice of the Resident.

83. On the 1st July 1887 Mr. Ballantine, whose services have been lent to His Highness the Nizam, will leave Berar, where he has worked for almost nineteen years. He leaves Berar with natural reluctance, but a proper regard for his own interests made him accept the prospects offered him in Hyderabad, they being better than those he has before him in Berar. Lieutenant-Colonel van Someren, the Conservator, has now held charge of the Berar Forests for two-and-a-half years, during which time he has had ample opportunities of forming a good opinion on the present condition and value of the Melghat reserves, which measure 605 square miles, and of the working of the Melghat nakas (or custom-houses where dues on forest produce from the other forest lands of the Melghat are paid), as compared with what they were twenty years ago as evidenced by common report, by the written reports of those days, and by the present condition of open forests elsewhere in Berar and in parts of the Melghat.

The conservation of the reserves here was in the first instance due to Lieutenant-Colonel Mackenzie, Deputy Commissioner of Ellichpur, who, twenty odd years ago, set off the forests, and has ever since afforded the department generally, and Mr. Ballantine in particular, constant, ready, and effective aid.

But Mr. Ballantine is the officer who, by his well-devised and steadily-worked-out schemes, has, during the last nineteen years, transformed these once utterly-neglected and ill-used jungles into a well-roaded and well-protected Government forest estate equal to any in India. It is now stocked with vast numbers of vigorous young trees of valuable kinds growing on a soil that has been suc-

cessfully protected from fire for many years past, and so has formed much humus. He has further taught the forest tribes that the proper conservation of forests benefits them as well as others, and he has gained the esteem and respect of all among whom and with whom he has worked.

Mr. Ballantine has laid a broad and deep and sound foundation on which his successors have only to build.

G. J. VAN SOMEREN, LIEUT.-COL.,

Conservator of Forests, Hyderabad Assigned Districts.

APPENDICES.

B105

FORESTS.

ANNUAL FORM No. 49.—A.—*Area of Classed State Forests and Waste Lands*, 1886-87.

Division.	Range.	Civil District or Territory.	Name of Forest.	Area on 1st April 1886. Acres.	Area on 1st April 1886. Equivalent in square miles.	Added during the year. Acres.	Excluded or transferred to other heads. Acres.	Area on 31st March 1887. Acres.	Area on 31st March 1887. Equivalent in square miles.	No. and date of notification of addition or transfer.	Remarks.
			(a) RESERVED FORESTS.								
Ellichpur District	Bairaghar ..	Ellichpur District	Bairaghar Reserve ...	272,049	425	...	...	272,049	425		
	Gugumal ..		Gugumal do. ..	115,083	180	...	39	115,044	180	185 of 16th August 1886 in Hyderabad Residency Orders of 1st September 1886.	For the 3rd section of the road in construction by the Public Works Department.
			Chikalda do. ...	2,400	4	...	...	2,400	4		
Amraoti District ...	Amraoti Hills...	Amraoti District ...	Amraoti Hills Reserve.	50,973	80	...	...	50,973	80		
Akola District	...	Akola District .	Loni do. ...	908	1	...	...	908	1		
	...	Do. .	Bhongaon do. ...	1,368	2	...	...	1,368	2		
	Ghatbori ..	Akola, Buldana and Basim Districts ..	Ghatbhori do. ...	23,760	37	...	...	23,760	37		
		Akola District ...	Mandwa do. ...	5,475	9	...	...	5,475	9		
Buldana District	Gerumatergaon	Buldana District ..	Gerumatergaon do. ...	45,902	72	...	45	45,947	72	186 of 16th August 1886 in Hyderabad Residency Orders of 1st September 1886.	
	Amdari ...	Do. ...	Amdari do. ...	13,717	21	...	...	13,717	21		
Basim District	...	Basim District ..	Pengunga do. ...	11,575	18	...	...	11,575	18		
	...	Do. ..	Rui do. ...	6,647	10	...	...	6,647	10		
	...	Do. ..	Gahuli do. ..	9,507	15	...	...	9,507	15		
	Kinwat ..	Do. ..	Kinwat do. ..	52,558	82	...	...	52,558	82		
Wun District	Kelapur ..	Wun District ...	Kelapur do. .	40,289	63	...	...	40,289	63		
	Wun ..	Do. ...	Tiwsala do. ...	4,873	8	...	...	4,873	8		
	Yeotmal ..	Do. ...	Gondwakri do. ...	16,359	26	...	...	16,359	26		
	Do. ..	Do. ..	Kharad do. ...	16,117	25	...	603	15,514	24	187 of 16th August 1886 in Hyderabad Residency Orders of 1st September 1886.	
	Darwa ..	Do. ..	Anjankher do. ...	7,634	12	...	...	7,634	12		
	Do. ..	Do. ...	Lonbehel do. ...	9,437	15	...	250	9,187	14	191 of 30th August 1886 in Hyderabad Residency Orders of 1st September 1886.	
	Do. ...	Do- ...	Pathroat do. ...	2,889	5	...	..	2,889	4		
				709,610	1,110	...	937	708,673	1,107		
			(c) VILLAGE FORESTS.								
Ellichpur District ...	...	Ellichpur District ...	Village Forests ..	35,939	56	(a) 53	(b) 10	35,982	56	(b) Commissioner's No. 549 of 1887 for 2 acres.	[a] Added to B. grazing lands in Daryapur Taluk. [b] 2 acres given up for bazaar site in Bairam grazing tract and 8 acres given up for cultivation in Ellichpur Taluk.
Amraoti District ...	...	Amraoti District ...	Do. ..	150,327	235	(c) 65	(c) (d) 106	150,286	235	(c) Secretary for Berar's No. 2136-R. of 17th August 1886.	[d] Secretary for Berar's No. 3238-R. of 17th December 1886. Do. No. 2630-R. of 6th October 1886. Do. No. 512-R. of 2nd March 1887.
Akola District ...	..	Akola District ..	Do. ...	49,248	77	...	*49	49,199	77	...	* Excluded in order to arrive at the area on the 31st March 1887, as shown by District Forest Officer, Akola.
Buldana District ...	...	Buldana District ..	Do. ..	5,132	8	...	...	5,132	8		
Basim District ...	...	Basim District ...	Do. ...	19,038	30	...	105 †105	18,828	29	...	† 105 acres more excluded in order to arrive at the area on 31st March 1887 as shown by District Forest Officer, Basim.
Wun District ...	...	Wun District ...	Do. ...	19,124	30	47	...	19,171	30		
				278,808	436	165	375	278,598	435		
				988,418	1,546	165	1,312	987,271	1,542		

B.—*Area of Unclassed State Forests and Waste Lands.*

			WASTE LANDS.								
Ellichpur District	Melghat Taluk.	Ellichpur District ...	Waste Lands ...	586,400	916	...	125	586,275	916	185 of 16th August 1886 in Hyderabad Residency Orders of 16th August 1886 and 268 of 6th December 1886 in Orders of 15th December 1886.	For the 3rd and 4th sections of the road in construction by the Public Works Department.
	Akola Taluk (land in Melghat Hills)	Akola District ..	Do. ...	1,460	2	...	...	1,460	2		
	Julgaon Taluk (land in Melghat Hills		Do. ...	4,476	7	...	...	4,476	7		
	...	Ellichpur District ...	Do. ...	204	...	113	31	286	...		
Amraoti District	Amraoti Taluk. (land in Amraoti Hills.)	Amraoti District ...	Do. ...	2,358	4	...	...	2,358	4		
	Chandur Taluk (land in Amraoti Hills.)	Amraoti District ...	Do. ...	1,003	2	...	...	1,003	2		
	...	Amraoti District ...	Do. ...	14,162	22	933	609	14,486	23		
Akola District ...	...	Akola District ...	Do. ...	89,577	140	1,643	*6,439	84,781	132	..	* 4,780 acres more excluded to arrive at the area on 31st March 1887 as shown by District Forest Officer, Akola.
Buldana District ...	...	Buldana District ...	Do. ...	166,122	260	1,910	50,525	117,507	184		
Basim District ...	...	Basim District ...	Do. ..	448,279	700	909	†28,470	420,718	657	..	† 8,035 acres more excluded in order to arrive at the area on 31st March 1887 as shown by District Forest Officer, Basim.
Wun District ...	...	Wun District ...	Do. ...	475,800	743	1,622	‡47,182	430,240	672	..	‡ 41,176 acres more excluded in order to arrive at the area on 31st March 1887 as shown by District Forest Officer, Wun.
				1,789,341	2,796	7,120	133,381	1,663,590	2,599		

FORESTS.

ANNUAL FORM No. 50.—*Prosecutions for breaches of Forest Rules during* 1886-87.

Forest Division and Civil District.	Cases pending from 1885-86.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year.
		Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
ELLICHPUR DISTRICT.														
A. (a) Reserved Forests ...	...	1	7	...	...	8	8	6	13	2	7	8	20	...
(c) Village Forests ...	...	...	1	...	..	1	1	1	1	...	...	1	1	...
B. Unclassed State Forests and Waste Lands,—Melghat..	...	...	...	...	105	105	105	76	102	29	36	105	138	...
AMRAOTI DISTRICT.														
A. (a) Reserved Forests ...	...	1	7	...	...	8	8	7	18	1	2	8	20	...
(c) Village Forests ...	1	1	65	...	1	67	68	50	113	15	29	65	142	3
AKOLA DISTRICT.														
A. (a) Reserved Forests ...	...	...	3	...	..	3	3	1	1	2	8	3	9	...
(c) Village Forests ...	1	...	113	...	.	113	114	84	107	30	43	114	150	...
BULDANA DISTRICT.														
A. (a) Reserved Forests ...	...	1	6	2	...	9	9	9	18	...	...	9	18	...
(c) Village Forests ...	1	...	37	...	3	40	41	30	57	9	15	39	72	2
BASIM DISTRICT.														
A. (a) Reserved Forests ...	...	...	1	...	...	1	1	1	3	...	...	1	3	...
(c) Village Forests ...	...	...	36	...	...	30	36	26	53	4	14	30	67	...
WUN DISTRICT.														
A. (a) Reserved Forests ...	...	3	2	2	...	7	7	6	13	1	6	7	19	...
(c) Village Forests ...	...	...	13	...	1	14	14	12	17	2	13	14	30	...
Total ...	9	7	285	4	110	406	409	309	516	95	173	404	689	5

ANNUAL FORM No. 51.—*Area of Forest tracts protected from fire during the dry season* 1887, *to accompany Report for* 1886-87.

Division.	Forest tracts.	Year in which protection commenced.	Area actually protected up to 30th June 1886.	During dry season of 1887.			Cost during the season up to 30th June 1887.	Remarks.
				Area attempted to be protected.	Failures.	Actually protected.		
			Acres.	Acres.	Acres.	Acres.	Rs.	
Ellichpur District.	Raipur block of Bairaghar Reserve	1870	14,231	14,231	...	14,231	416	
	Remainder of Bairaghar Reserve	1872	257,267	257,818	688	257,130	1,332	
	Gugumal Reserve ...	1877	115,083	115,044	...	115,044	700	
			386,581	387,093	688	386,405	2,448	
Amraoti District.	Chiroree block of Amraoti Hills Range ...	1881	11,771	13,071	1,480	11,591	186	
Akola District.	Loni Reserve ...	1882	2,276	908	...	908	42	
	Bhongaon Reserve ...	1882		1,368	...	1,368		
	Ghatbori do. ...	1881	29,235	23,760	...	23,760	...	
	Mandwa do. ...	1882		5,475	100	5,375		
			31,511	31,511	100	31,411	42	
Buldana District.	Gerumatergaon Reserve..	1880	45,992	45,947	1	45,946	153	
	Amdari do. ...	1883	13,717	13,717	81	13,636	98	
			59,709	59,664	82	59,582	251	
Basim District.	Penganga Reserve ...	1880	9,202	11,575	...	11,575	96	
	Rui do. ...	1882	6,647	6,647	...	6,647	30	
	Gahuli do. ...	1885	8,897	9,507	...	9,507	179	
	Kinwat do. ...	1881	50,808	52,558	1,000	51,558	621	
			75,554	80,287	1,000	79,287	926	
Wun District	Kelapur Reserve ...	1881	31,314	40,289	1,490	38,799	656	
	Tiwsala do. ...	1882	2,873	4,873	2,010	2,863	102	
	Gondwakri do. ...	1882	9,344	16,359	546	15,813	256	
	Kharad do. ...	1882	12,999	15,514	7,368	8,146	459	
	Anjankher do ...	1882	6,984	7,634	...	7,634	166	
	Loubehel do. ...	1882	9,437	9,187	...	9,187	178	
	Pathroat do. ...	1882	2,889	2,889	5	2,884	163	
			75,840	96,745	11,419	85,326	1,980	
	Total ...		640,966	668,371	14,769	653,602	5,833	

FORESTS.

ANNUAL FORM No. 52.—*Area of Plantations*, 1886-87.

Division.	Name of Plantation.	Area in acres. On 1st April 1886.	Added during the year.	Excluded during the year.	Area on 31st March 1887.	Receipts Of the year.	Charges Of the year.	Remarks.
	REGULAR PLANTATIONS.							
	Bairaghar Reserve—							
Ellichpur District	Abapur	120	...	...	120	...	...	Teak and bambo .
	Bujru	31	...	...	31	...	...	Do.
	Dugapati	11	...	...	11	...	...	Do.
	Jambulwari	600	...	...	600	...	...	Do.
	Kolkaz	1	...	...	1	...	91	Forest garden.
	Labu	279	...	...	279	...	...	Teak and bamboo.
	Pili	52	...	...	52	...	...	Teak.
	Pipalcotah	160	...	...	160	...	...	Teak and bamboo.
	Rakiadoh	13	...	...	13	...	..	Do.
	Saoli	110	...	...	110	..	...	Do.
	Saoli and Kurita	30	...	...	30	...	...	Do.
	Sembajoh	2	...	...	2	..	...	Do.
	Miscellaneous charges	...	...	...	...	...	174	Collecting seed.
Wun District	Pathroat Reserve	...	50	...	50	..	883	Bamboo and mango stone sowing.
	Total	...	50	...	50	...	883	
	Total Regular Plantations	1,409	50	...	1,459	...	1,148	
	CULTURAL OPERATIONS.							
Direction ...	Miscellaneous charges	...	...	...	...	...	32	Carriage of seed, &c.
	Total	...	..	...	...	..	32	
Ellichpur District	Bairaghar Reserve	.	244	..	244	..	55	Broadcast sowing.
	Gugumal Reserve	750	1	...	751	..	24	Do.
	Chikalda do.	..	...	..	...	...	133	Forest garden.
	A. [c] Village Forests	...	...	...	...	...	163	Date & lemon plantation.
	Miscellaneous charges	...	...	...	...	...	1	
	Total	750	245	...	995	...	376	
Amraoti District	Amraoti Hills Reserves	1,415	5	...	1,420	...	258	Babul, bamboo and tewas sowing broadcast.
	A. [c] Village Forests	346	473	...	819	...	426	Sown with saondal, shishum, tewas, bamboo seed and with mango stones and fruit trees in a nursery at Karanja for roadside planting and with bamboo seed in the nursery at Yeota.
	Total	1,761	478	...	2,239	...	684	
Akola District	Loni Reserve	307	53	...	360	...	138	Bamboo and babul sowing broadcast.
	Bhongaon Reserve	351	19	...	370	...		
	Ghathori do.	587	..	...	587	...	97	Do.
	A. [c] Village Forests	...	129	..	129	...	94	Babul sowing broadcast.
	Miscellaneous charges	...	...	...	...	...	30	Collecting seed.
	Total	1,245	201	...	1,446	...	359	
Buldana District	Gorumatergaon Reserve	904	5	..	909	...	48	Teak sowing broadcast.
	Amdari Reserve	87	...	...	87	...	...	Do.
	Total	991	5	...	996	...	48	
Basim District	Penganga Reserve	1,749	201	..	1,950	...	133	Teak and bamboo sowing broadcast.
	Rui Reserve	50	41	...	91	...	175	Do.
	Kinwat Reserve	...	60	...	60	...	298	Do.
	Miscellaneous charges	...	...	...	..	..	131	Collecting seed.
	Total	1,799	302	...	2,101	...	705	
Wun District	Kelapur Reserve	...	107	...	107	...	195	Bamboo, ain, dhaora, moha, mokha and lendya sowing broadcast.
	Tiwsala do.	...	51	.	51	...	19	
	Gondwakri Reserve	...	142	...	142	...	119	
	Kharad do.	...	142	...	142	...	120	
	Anjankhed do.	...	272	...	272	...	99	
	Lonbehel do.	...	1	...	1	...	74	Bamboo sowing broadcast.
	Pathroat do.	...	1	...	1	...	44	Do.
	A. [c] Village Forests	...	..	...	...	...	3	Do.
	Miscellaneous charges	...	...	...	...	...	125	Collecting seed.
	Total	...	716	...	716	...	798	
	Total Cultural Operations	6,546	1,947	...	8,493	...	3,002	
	Grand Total	7,955	1,997	...	9,952	...	4,150	

FORESTS.

ANNUAL FORM No. 53.—*Trees felled or girdled by Government Agency during the year* 1886-87. *(Improvement fellings.)*

Division.	Trees felled or girdled.		Remarks.
	Description.	Number.	
Ellichpur District	Arang	1	
	Bel	1	
	Bhosa	2	
	Dhamin	3	
	Dhaura	173	
	Haldu	297	
	Kahu	2	
	Karka	1	
	Kuram	8	
	Lendia	102	
	Mohin	6	
	Mokha	8	
	Pasi	1	
	Sajar	359	
	Sembal	1	
	Teak	2,500	
	Pendu	4	
	Tewas	3	
	Total ...	3,472	
	Total of the Circle ...	3,472	

FORESTS.

Annual Form No. 54.—*Out-turn of Timber and Firewood* during the year* 1886-87.

Division.	Description of materials.	Out-turn in cubic feet.							
		Improvement fellings.	Clearances.	Thinnings.	Total.	Removed by			
						Government Agency.	Purchasers.	Free grants.	Right holders.
	A.—Classed State Forests and Waste Lands.								
	(a).—Reserved Forests.								
Ellichpur District ...	Trees as per Form 53 ... Nos.	3,472	...	...	3,472	...	...	...	...
	Teak, Tewas, Sheshum...cft.	...	...	...	...	...	21,266	...	...
	Other wood ... "	...	...	...	...	...	8,088	...	...
Amraoti do. ...	Firewood .. ... cft.	...	...	...	...	...	19,288	...	...
Akola do. ...	Firewood and charcoal . cft.	...	...	...	...	...	550	...	...
Buldana do. ...	Timber ... ... cft.	...	...	...	...	...	1,134	...	...
	Firewood and charcoal "	...	...	...	...	...	7,536	...	...
Basim do. ...	Timber ... pieces.	...	227	...	227	...	...	...	...
	Firewood ... ... cft.	...	...	...	...	...	7,931	...	...
Wun do. ...	Timber ... ... cft.	...	...	...	...	...	185	...	...
	Firewood ... ... "	...	...	...	...	...	217	...	...
	Total ...	3,472	227	...	3,699	...	66,195	...	..
	(c).—Village Forests.								
Ellichpur District...	Firewood ... ... cft.	...	...	...	...	...	728	...	...
Amraoti do. ...	..... †	...	...	...	...	...	..	...	...
Akola do. ...	Timber ... ... cft.	...	...	...	...	...	41	...	...
	Firewood and charcoal "	...	...	...	...	...	401	...	...
Buldana do. ...	Timber ... ... cft.	...	...	...	...	...	16,772	...	...
	Firewood and charcoal "	...	...	...	...	..	89,894	...	...
Basim do. ...	.....†	...	...	...	...	...	...	...	...
Wun do. ...	Timber ... ... cft.	...	...	...	...	...	14,070	...	...
	Firewood ... ... "	...	...	...	...	...	3,178	...	...
	Charcoal ... .. "	...	...	...	...	...	2,198	...	...
	Total ...	...	...	...	...	...	127,282	...	...
	(B).—Unclassed State Forests and Waste Lands.								
	Melghat.								
Ellichpur District ...	Teak, Tewas, & Sheshum cft.	...	..	...	...	...	149,762	...	...
	Other wood ... "	...	...	...	...	...	137,614	...	...
	Firewood ... ... "	...	...	...	...	...	130,515	..	...
	Charcoal ... ... "	...	...	...	...	...	124,339	...	...
	Total ...	...	..	...	...	...	542,230	...	...
	Abstract:—								
	Trees ... ... Nos.	3,472	...	...	3,472	...	...	...	...
	Timber ... pieces.	...	227	...	227	...	...	...	...
	Teak, Tewas & Sheshum cft.	...	...	...	...	...	171,028	...	...
	Timber or other wood ... "	...	...	...	...	...	177,904	...	...
	Firewood and charcoal .. "	...	...	...	..	...	386,775	...	...
	Total ...	3,472	227	...	3,699	...	735,707	...	...

* Charcoal should be shown by its equivalent in firewood.

† Timber and firewood sold by auction.

FORESTS.

ANNUAL FORM No. 55.—*Out-turn of Minor Forest Produce during the year* 1886-87.

Division.	Description of produce.	Produce removed or utilised. By Government Agency — Quantity	By Government Agency — Value	By Purchasers — Quantity	By Purchasers — Value	By free grants — Quantity	By free grants — Value	By right holders — Quantity	By right holders — Value	Total — Quantity	Total — Value
	A —CLASSED STATE FORESTS AND WASTE LANDS.		Rs		Rs.		Rs		Rs		Rs.
	(a) RESERVED FORESTS.										
Ellichpur District	Bamboos . . No	.		1,171,227	17,569		..		...	1,171,227	17,569
	Grass . . Tons			2	2				...	2	2
	Roots and fruits .. ,,			116	918				.	116	918
	Lac . ,,	.		½	4	..	.		.	½	4
	Miscellaneous .. ,,			...	1	.	.	.		..	1
Amraoti do. ...	Grass in Chirodi block . ,,			952	1,104			.		952	1,104
	Grass sales on Nakas ,,				4,429	.	.	.			4,429
	Grazing buffaloes No.			1,625	1,383		.	.		1,625	1,383
	Do cows, &c . ,,			5,773						5,773	
	Do sheep and goats ,,	.		4,085		.				4,085	
	Minor produce Tons			43	79			.		43	79
	Amrai Mohadi sales ,,	.			35						35
Akola do. ...	Grazing buffaloes . No			865	393		.	.	..	865	393
	Do cows, &c. ,,			11,949		..			..	11,949	
	Grass Tons			39	214					39	214
Buldana do. ...	Grass .. ,,	.		732	798		.		.	732	798
	Grazing buffaloes . No			1,151	3,358				..	1,151	3,358
	Do cows, &c. ,,			11,125						11,125	
Basim do. ..	Bamboos ,,			775	15		.		.	775	15
	Grass . .. Tons			655	419				..	655	419
	Grazing buffaloes No			364	1,926				.	364	1,926
	Do cows, &c. ,,			6,968		.			.	6,968	
Wun do ...	Bamboos . . ,,			43,559	435		.		..	43,559	435
	Grass .. . Tons			4,999	2,560					4,999	2,560
	Grazing buffaloes No			603	4,338					603	4,338
	Do cows &c. ,, ..	.		16,146					.	16,146	
	Minor produce Tons			1	8					1	8
	[c] VILLAGE FORESTS.										
Ellichpur do. .	Grass .. Tons			.	1,034			.	.		1,034
	Grazing buffaloes . No			1,227	851	..	.	..		1,227	851
	Do cows &c. . ,,			8,200					.	8,200	
	Do sheep &c. . ,,	.		2,832					.	2,832	
	Amrai and Mohadi		..		339	...			.	.	339
Amraoti do.	Grazing camels No			3	23,767	.			.	3	23,767
	Do buffaloes ,,	.		274,435				.	.	274,435	
	Do cows &c ,, ...			107,438				..	.	107,438	
	Do sheep & goats . ,,			55,601					...	55,601	
	Grass sales by auction				11,969	...			...	...	11,969
	Amrai Mohadi sales by auction		.		3,182				...	.	3,182
Akola do.	Bamboos No .	..		5	1				.	5	1
	Grass sales by auction ..			.	16,440	.					16,440
	Grazing buffaloes ,,	.		181	371			.	.	181	371
	Do. cows &c ,,			1,044					.	1,044	
	Do goats &c . ,,			312				.	.	312	
	Amrai Mohadi sales by auction				1,302	.		...	.	..	1,302
Buldana do. .	Grazing sold by auction				14,986			.	..		14,986
	Other minor produce Tons			215	1,148	.			.	215	1,148
Basim do. ..	Bamboos .. No.				3			..	.	.	3
	Grass sales		.	.	13,633			..	.	.	13,633
	Grazing buffaloes . ,,			59	3,159				.	59	3,159
	Do cows &c ,,		.	1,542	415	.		.	..	1,542	415
	Minor produce . Tons				3,022	.		.	.		3,022
Wun do	Bamboos No			54,175	542		.	.	..	54,175	542
	Grass . Tons		.	3,393	1,697				.	3,393	1,697
	Grazing buffaloes . No	..	.	45,568	51,322	.	..		.	45,568	51,322
	Do cows &c . ,,		.	277 645						277,645	
	Do sheep, &c. ,,	.		86,851						86,851	
	Other minor produce Auction sales			.	3,416			.	.	.	3,416
	B —UNCLASSED STATE FORESTS AND WASTE LANDS										
	MELGHAT.										
Ellichpur do	Bamboos ... No .			853 000	12,795					853,000	12,795
	Grass Tons			3,960	2,568					3,960	2,568
	Grazing camels No			66	9,104			.	..	66	...
	Do buffaloes . ,,			14,557						14,557	
	Do cows, &c ,,	.		84,706					..	84,706	
	Do sheep, &c ,,			54,360						54,360	
	Teak leaves . Tons			274	737	.	.	.	.	274	737
	Roots and fruits . ,,			873	4,387			..	.	873	4,387
	Lac . ,,			6	99	.		.		6	99
	Gum ... . ,,			1	12			..		1	12
	Miscellaneous . .. ,,			21	96	..	.			21	96
	Abstract —										
	Bamboos .. No	.		2,122,741	31,359			.	.	2,122,741	31,359
	Grass . Tons			14,732	75,021		..		.	14,732	75,021
	Grazing camels . ... No			69	97,228	.			.	69	97,228
	Do buffaloes ... ,,			93,645						93,645	
	Do cows, &c ,,			532,536		.		.	.	532,536	
	Do sheep &c. . ,,			204,041		.	.			204,041	
	Roots and fruits Tons			989	5,305					989	5,305
	Lac .. . ,,			6	103	..				6	103
	Teak leaves ,,	.	..	274	737	.	.	..	.	274	737
	Gum ,,	.		1	12	...	.	..		1	12
	Miscellaneous produce . ,,			280	12,628			.		280	12,628
	Total	...		.	2,22,393	.	..	.	..	...	2,22,393

FORESTS.

Annual Form No. 57.—*Abstract showing the value of Timber and other Produce at Sale Depôts for the year* 1886-87.

Description of timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in values.		Remarks.
	No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favor of the year.	Against the year.	
			Rs.			Rs.	Rs.	Rs.	
Direction Office.									
Surveying and other instruments ...	11	...	...	11	...	...			
Tools	18	...	...	18	...	15			
Office furniture	112	...	548	114	...	569			
Tents	8	...	1,059	8	...	895			
Miscellaneous	35	...	...	47	...	110			
Elephant	1	...	3,000	1	...	3,000			
Total ...	185	...	4,607	199	...	4,589			
Ellichpur District.									
Surveying and other instruments ...	18	...	...	18	...	...			
Tools	699	...	953	672	...	876			
Office furniture	174	...	1,100	188	...	1,190			
Tents	1	...	15	4	...	732			
Bungalows	2	...	8,000	2	...	8,000			
Miscellaneous	218	...	376	224	...	500			
Elephant	1	...	800	1	...	800			
Bullocks	5	...	150	5	...	150			
Buffaloes	...	...	...	2	...	60			
Total ...	1,118	...	11,394	1,116	...	12,308			
Amraoti District.									
Surveying and other instruments ...	3	...	...	3	...	...			
Tools	63	...	109	64	...	111			
Office furniture	50	...	191	52	...	266			
Tents	3	...	470	3	...	542			
Miscellaneous	30	...	49	31	...	50			
Buffaloes	1	...	15	1	...	15			
Total ...	150	...	834	154	...	984			
Akola District.									
Surveying and other instruments ...	...	...	...	...	...	...			
Tools	166	...	...	236	...	...			
Office furniture	38	...	161	43	...	209			
Tents	2	...	464	2	...	454			
Miscellaneous	14	...	...	50	...	...			
Total ...	220	...	625	331	...	663			
Buldana District.									
Surveying and other instruments ...	...	...	...	5	...	...			
Tools	...	...	...	100	...	...			
Office furniture	...	...	...	19	...	16			
Tents	...	...	...	3	...	509			
Miscellaneous	...	...	...	35	...	27			
Total ...	...	...	...	162	...	552			
Basim District.									
Surveying and other instruments ...	15	...	...	10	...	...			
Tools	253	...	11	229	...	106			
Office furniture	71	...	3	60	...	70			
Tents	4	...	528	4	...	518			
Miscellaneous	89	...	...	51	...	54			
Elephant	1	...	1,112	1	...	1,112			
Total ...	433	...	1,654	355	...	1,854			
Wun District.									
Surveying and other instruments ...	33	...	...	32	...	...			
Tools	160	...	130	76	...	...			
Office furniture	49	...	339	60	...	...			
Tents	3	...	389	3	...	500			
Miscellaneous	87	...	88	89	...	...			
Total ...	332	...	946	260	...	500			
Grand total ...	2,438	...	20,060	2,577	...	21,450	1,390		

B105—3

FORESTS.

ANNUAL FORM No. 58.—*Summary of Revenue and Expenditure of the different District Forests during* 1886-87.

Budget Heads.	Direction Office.	District Forests.						
		Akola.	Amraoti.	Buldana.	Basim.	Ellichpur.	Wun.	Total.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a.
REVENUE.								
I.—Timber and other produce removed from the Forests by Government Agency:—								
a. Timber	...	...	...	...	...	...	...	...
b. Firewood and charcoal	...	...	...	...	...	...	...	...
c. Bamboos	...	..	...	...	...	...	...	...
d. Sandalwood	...	..	...	...	...	...	...	...
e. Grass and other minor produce	...	...	...	...	...	...	...	...
II.—Timber and other produce removed from the forests by consumers or purchasers:—								
a. Timber	...	307 10 0	298 8 11	1,191 8 0	1,938 11 0	69,679 3 5	3,481 3 6	76,896 12 10
b. Firewood and charcoal	...	2,141 6 3	10,610 9 11	894 14 3	3,220 8 6	6,544 2 6	326 0 3	23,737 9
c. Bamboos	...	0 1 6	...	...	18 8 0	30,363 6 6	977 5 3	31,359 5 3
d. Grazing and fodder grass	...	17,427 1 3	42,652 3 2	433 12 6	38,260 10 8	13,559 6 9	59,916 4 1	1,72,249 6 5
e. Other minor produce	...	1,302 3 9	3,295 13 0	30 4 0	4,140 4 3	6,593 0 0	3,423 13 9	18,785 6 9
III.—Drift and waif wood and confiscated forest produce..	...	6 14 3	29 10 6	55 6 10	323 8 6	1,606 3 0	112 7 0	2,134 2 1
IV.—Revenue from forests not managed by Government:—								
a. Duty on foreign timber and other forest produce ...	...	...	...	...	...	...	...	...
b. Revenue from shared and private forests ...	...	...	...	...	...	...	...	...
V.—Miscellaneous:—								
a. Fines and forfeitures	...	64 4 0	16 6 9	...	3 0 0	5 0 0	15 0 0	103 10 9
b. Refunds	1 13 4	18 2 9	218 12 5	...	26 14 11	1 1 2	29 14 7	296 11 2
c. Other sources	3 2 0	...	68 6 0	...	13 10 4	734 7 0	64 4 3	883 13
Total Revenue ...	4 15 4	21,267 11 9	57,190 6 8	2,605 13 7	47,945 12 2	1,29,085 14 4	68,346 4 8	3,26,446 14 6

FORESTS.

ANNUAL FORM No. 58.—*Summary of Revenue and Expenditure—continued.*

Budge	Direction Office.	District Forests.						Total.
		Akola.	Amraoti.	Buldana.	Basim.	Ellichpur.	Wun.	
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
EXPENDITURE.								
A.—CONSERVANCY AND WORKS.								
I.—Timber and other produce removed from the forests by Government Agency:—								
a. Timber	...	...	...	...	...	...	...	...
b. Firewood and charcoal	...	...	...	...	...	...	...	...
c. Bamboos	...	...	...	...	...	...	...	...
d. Sandalwood	...	...	...	...	...	...	...	...
e. Grass and other minor produce ...	...	...	...	...	...	...	...	...
II.—Timber and other produce removed from the forests by consumers or purchasers	...	265 15 0	2,670 2 0	2,291 4 2	956 9 11	888 14 9	7,168 13 7	14,241 11 5
III.—Drift and waif wood and confiscated forest produce	...	...	...	...	...	...	...	.
IV.—Revenue from forests not managed by Government:—								
a. Duty on foreign timber and other forest produce	...	...	...	...	...	...	...	
b. Revenue from shared and private forests	...	...	...	...	...	...	...	...
V.—Rent of leased forests and payments to shareholders in forests managed by Government	...	...	...	...	...	17,119 12 0	...	17,119 12 0
VI.—Live Stock, Stores, Tools and Plant:—								
a. Purchase of cattle	...	16 0 0	...	...	...	60 0 0	42 0 0	118 0 0
b. Feed and keep of cattle	1,187 7 11	...	...	...	709 1 9	827 4 1	732 7 11	3,476 5 8
c. Purchase of stores, tools and plant ...	316 9 7 [a] + 1 4 0	114 14 9	180 1 6	63 3 0	26 8 3	1,539 7 3	885 15 8	3,128 0 0
VII.—Communications and Buildings:—								
a. Roads and bridges	...	...	...	2 4 0	41 5 0	8,068 11 9	..	8,112 4 9
b. Buildings	100 10 0	...	1,702 3 2	...	121 5 0	421 5 3	210 10 8	2,565 2 1
c. Other works	5 0 0	...	3 0 0	...	4 11 0	645 5 4	...	658 0 4
VIII.—Demarcation, Improvement, and Extension of Forests:—								
a. Demarcation	...	50 0 0	...	55 0 3	79 10 0	301 15 9	229 0 3	715 10 3
b. Compensation for land and rights ...	...	2 13 0	11 0 0	...	...	...	...	13 13 0
c. Surveys and working plans ...	18 15 0	...	...	...	0 8 0	308 8 1	..	327 15 1
d. Sowing and planting	31 8 9	295 3 9	684 3 10	...	816 6 0	641 2 10	1,681 1 11	4,149 11 1
e. Protection from fire	..	7 8 0	183 7 4	174 12 11	970 6 4	2,433 11 4	1,749 0 2	5,518 14 1
f. Other works	2 10 0	...	75 7 0	...	20 12 0	110 14 0	73 8 0	283 3 0
IX.—Miscellaneous:—								
a. Refunds	...	1,910 4 0	7 12 0	13 2 0	...	6 10 0	12 8 0	1,950 4 0
b. Law charges	...	...	...	...	...	1 0 0	...	1 0 0
c. Other charges	820 9 0	25 14 0	5 10 0	6 3 0	5 2 0	854 8 0	383 15 6	2,101 13 6
Total A.—Conservancy and Works ...	2,492 6 3 + 1 4 0	2,088 8 6	5,522 14 10	2,605 13 4	3,752 5 3	34,229 2 5	13,189 1 8	64,481 8 3
B.—ESTABLISHMENT.								
I.—Salaries:—								
a. Conservators	15,330 10 4	...	...	...	...	...		15,330 10 4
b. Superior Officers	...	4,000 0 0	4,502 12 9	600 0 0	12,437 15 2	7,500 0 0	1,800 0 0	30,840 11 11
c. Subordinate Forest and Depôt Establishments	...	2,594 2 10	2,200 9 5	906 1 3	6,478 5 3	15,021 8 9	4,099 9 6	31,300 5 0
d. Office Establishments	3,602 8 7	480 7 0	728 3 9	187 15 10	1,274 6 7	2,747 13 9	1,027 3 9	10,048 11 3
e. Deputation and special allowances ...	...	...	68 0 0	...	...	...	...	68 0 0
II.—Travelling Allowances:—								
a. Conservators	2,207 0 0	...	...	...	...	...	...	2,207 0 0
b. Superior Officers	...	779 0 3	1,239 11 0	261 2 8	1,268 0 0	1,843 0 0	776 2 6	6,162 0 5
c. Subordinate Forest and Depôt Establishments	..	377 7 8	332 2 6	290 13 4	1,037 4 9	1,416 10 8	490 5 4	3,944 11 6
d. Office Establishments	433 7 0	62 6 0	101 10 0	78 10 8	242 9 4	391 9 4	194 1 4	1,504 5 8
III.—Contingencies:—								
a. Stationery	43 13 9	37 10 11	29 4 10	6 12 9	67 15 6	148 12 9	36 0 0	370 6 6
b. Carriage of tents and records ...	531 5 6	292 4 8	450 15 7	99 1 10	427 9 2	657 15 8	396 1 8	2,855 6 1
c. Rents, rates and taxes	...	...	212 14 5	...	...	400 0 0	175 10 8	788 8 8
d. Pay of Police Guards	...	...	...	...	...	...	...	...
e. Official Postage.	324 11 0	50 9 2	41 3 6	11 4 0	120 12 9	265 12 6	29 5 0	843 9 2
f. Sundries	192 2 11	24 6 2	80 8 8	3 14 0	78 3 5	263 4 10	121 10 1	764 2 1
Total B.—Establishments ..	22,665 11 1	8,608 6 8	9,988 0 6	2,445 12 4	23,428 0 5	30,656 8 3	9,146 1 5	1,07,028 8 7
Grand Total of Expenditure ...	25,158 1 4 + 1 4 0	11,586 15 2	15,510 15 3	5,051 9 8	27,180 5 8	64,885 10 8	22,335 3 1	1,71,510 0 10

[a] Railway charges on stores supplied by the Ordnance Store-keeper, Bombay.

COMPTROLLER'S OFFICE,
BOLARUM,
The 16th June 1887.

T. H. S. BIDDULPH,
Comptroller,
Hyderabad.

FORESTS.

ANNUAL FORM No. 59.—*Account Current of the Forest Department, Hyderabad Assigned Districts, for the year* 1886-87.

Dr.

	Rs. a. p.	Rs. a.
To Cash Balance		1,997 8 3
„ *IX.—Forests (Revenue as per Annual Summary Form* 58.)	3,26,446 14 6	
„ *Service Funds*	1,614 9 6	
Forest Cash Remittances, Local :—		
Forest cheques drawn	1,64,972 14 6	
Interdivisional transfers	932 12 0	4,93,967 2 6
„ *Advances recoverable*	55,588 2 9	
„ *Suspense*	2 6 8	
„ *Cash Recoveries*	5,132 2 5	
„ *Account Current (Other Governments)*	1,719 6 2	
„ *Interdepartmental transfers*	1,953 3 8	64,395 5 8
Total ...		5,60,360 0 5

Cr.

	Rs. a. p.	
By 11.—*Forests (Expenditure as per Annual Summary Form* 58	1,71,510 0 10	
„ *Forest Cash Remittances, Local* :—		
Remittances to treasuries...	3,24,715 7 2	
Interdivisional transfers	932 12 0	
Cancelled cheques	200 0 0	4,97,358 4 0
„ *Advances recoverable*	56,948 15 8	
„ *Suspense*	2 6 8	
„ *Cash Recoveries*	1,257 2 6	
„ *Account Current (Other Governments)*	515 5 4	
„ *Interdepartmental transfers*	1,017 4 9	59,741 2 11
„ *Cash Balance*		3.260 9 6
Total ...		5,60,360 0 5

COMPTROLLER'S OFFICE,
BOLARUM,
The 16*th June* 1887.

T. H. S. BIDDULPH,
Comptroller,
Hyderabad.

FORESTS.

ANNUAL FORM No. 60.—*Revenue received and outstandings on account of Revenue during* 1886-87.

Division.	Particulars.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.
			Rs. a. p.	Rs. a. p.	Rs. a. p.	
Direction Office ...	Miscellaneous other sources ...	...	4 15 4	4 15 4	4 15 4	...
Ellichpur District.	Timber and other produce ...	...	1,29,085 14 4	1,29,085 14 4	1,29,085 14 4	...
Amraoti District..	Do. ...	...	57,190 6 8	57,190 6 8	57,190 6 8	...
Akola District ...	Do. ...	...	21,267 11 9	21,267 11 9	21,267 11 9	...
Buldana District (for the whole year) ...	Do. ...	...	25,716 15 10	25,716 15 10	25,716 15 10	...
Basim District (for the whole year) ...	Do. ...	...	24,834 9 11	24,834 9 11	24,834 9 11	...
Wun District ...	Do. ...	...	68,346 4 8	68,346 4 8	68,346 4 8	...
	Total ...	...	3,26,446 14 6	3,26,446 14 6	3,26,446 14 6	...

ANNUAL FORM No. 61.—*Outstandings and Liabilities on account of Contractors and Disbursers for* 1886-87.

Districts.	Department Debtor.			Department Creditor.			Balance due.	
	At commencement of year.	Recoveries in cash and value of supplies and work done during year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (Outstandings).	By Department (Outstandings).
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Direction Office ...	...	1,445 15 7	1,445 15 7	331 15 7	1,219 9 10	1,551 9 5	105 9 10	...
Akola	...	3,240 6 5	3,240 6 5	326 11 7	4,988 10 2	5,315 5 9	2,074 15 4	...
		+154 15 4	+154 15 4		+154 15 4	+154 15 4		
Amraoti	...	7,598 13 9	7,598 13 9	2,431 8 9	6,357 8 11	8,789 1 8	1,149 5 11	...
		b+109 3 4	+109 3 4		+100 14 0	+100 14 0	a+32 8 8	
Buldana	...	3,823 6 0	3,823 6 0	...	4,827 10 7	4,827 10 7	1,004 4 7	...
Basim	...	13,447 0 7	13,447 0 7	2,863 9 9	11,733 6 8	14,597 0 5	1,149 15 10	...
Ellichpur	...	9,708 13 4	9,708 13 4	3,337 0 1	11,782 11 7	15,119 11 8	5,410 14 4	...
Wun	...	16,059 8 5	16,059 8 5	275 15 10	15,783 8 7	16,059 8 5	...	...
Total ...	...	55,324 0 1	55,324 0 1	9,566 13 7	56,693 2 4	66,259 15 11	10,895 1 10	...
		+264 2 8	+264 2 8		+255 13 4	+255 13 4	+32 8 8	

a. Advance made to Pandurung Narayan, Forester, on his transfer to Dehra Dun School has been debited in the accounts of this office to Objection Book Advances, but it is not shown in the Disbursers Ledger of the Amraoti District.
b. Includes Rs. 8-5-4, recovered from Pandurung Narayan and credited in account.

COMPTROLLER'S OFFICE,
BOLARUM,
The 16th June 1887.

T. H. S. BIDDULPH,
Comptroller,
Hyderabad.

ANNUAL FORM No. 62.—*Financial results of the year* 1886-87.

Division.	Timber and other produce removed from the forests by Government agency.		Other revenue.		Formation, protection, and improvement of forests.	Total.	
	Receipts	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.
			Rs.	Rs.	Rs.	Rs.	Rs.
Direction Office	...	...	5	18,949	6,210	5	25,159
Ellichpur District	...	...	1,29,086	43,683	21,203	1,29,086	64,886
Amraoti District	...	...	57,190	10,310	5,201	57,190	15,511
Akola District	...	...	21,268	8,824	2,563	21,268	11,387
Buldana District	...	...	2,606	4,192	860	2,606	5,052
Basim District	...	...	47,946	19,084	8,096	47,946	27,180
Wun District	...	...	68,346	15,685	6,650	68,346	22,335
Total ...	...	...	3,26,447	1,20,727	50,783	3,26,447	1,71,510

APPENDIX A.—*Cattle grazed in A—Classed State Forests and Waste Lands, and B—Unclassed State Forests and Waste Lands.*

Division.	Districts, &c.	Year.	Camels.	Buffaloes.	Cows and bullocks.	Sheep and goats.	Total.
	A. (c)—Village Forests.						
Ellichpur District....	Bairam grazing tract in Ellichpur Taluk...	1885-86	...	925	5,158	2,265	8,348
		1886-87	...	1,227	8,200	2,832	12,259
	B.—UNCLASSED STATE FORESTS AND WASTE LANDS. *Melghat.*						
	Melghat, Ellichpur, and Betul—Central Provinces ...	1885-86	...	6,550	24,307	4,781	35,638
		1886-87	...	5,460	24,252	4,683	34,395
	Ellichpur and Daryapur Taluks of Ellichpur	1885-86	58	5,791	34,060	34,793	74,702
		1886-87	66	5,641	32,387	43,826	81,920
	Akot and Jalgaon Taluks of Akola ...	1885-86	...	3,686	32,199	6,955	42,840
		1886-87	...	3,456	28,067	5,851	37,374
		1885-86	58	16,952	95,724	48,794	161,528
		1886-87	66	15,784	92,906	57,192	165,948
Amraoti District. ...	A. (a) Reserved Forests	1885-86	8	1,327	6,146	5,271	13,052
		1886-87	...	1,625	5,773	4,085	11,483
	„ (c) Village Forests.	1885-86	12	33,179	131,949	64,879	230,019
		1886-87	3	27,445	107,438	55,601	190,487
		1885-86	20	34,506	138,395	70,150	243,071
		1886-87	3	29,070	113,211	59,686	201,970
Akola District. ...	A. (a) Reserved Forests	1885-86	...	83	1,291	...	1,374
		1886-87	...	865	11,949	...	12,814
	„ (c) Village Forests.	1885-86	...	...	...	...	...
		1886-87	...	181	1,044	312	1,537
		1885-86	...	83	1,291	...	1,374
		1886-87	...	1,046	12,993	312	14,351
Buldana District. ...	A. (a) Reserved Forests	1885-86	...	1,387	13,471	...	14,858
		1886-87	...	1,151	11,125	...	12,276
	„ (c) Village Forests.	1885-86*	...	...	...	...	...
		1886-87*	...	...	...	...	...
		1885-86	...	1,387	13,471	...	14,858
		1886-87	...	1,151	11,125	...	12,276
Basim District. ..	A. (a) Reserved Forests	1885-86	..	865	15,228	...	16,093
		1886-87	...	364	6,968	...	7,332
	„ (c) Village Forests.	1885-86	...	...	578	...	578
		1886-87	...	59	1,542	...	1,601
		1885-86	...	865	15,806	...	16,671
		1886-87	...	423	8,510	...	8,933
Wun District. ...	A. (a) Reserved Forests	1885-86	...	311	10,912	...	11,223
		1886-87	...	603	16,146	...	16,749
	„ (c) Village Forests.	1885-86	...	48,442	298,382	94,348	441,172
		1886-87	...	45,568	277,645	86,851	410,064
		1885-86	...	48,753	309,294	94,848	452,395
		1886-87	...	46,171	293,791	86,851	426,813
	Total ...	1885-86	78	102,546	573,981	213,292	889,897
		1886-87	69	93,645	532,536	204,041	830,291

* Not known; grazing sold by auction.

Extract from the Proceedings of the Resident at Hyderabad, No. 2085, dated Hyderabad Residency, 16th August 1887.

Read—

The Report on Forest Administration in the Hyderabad Assigned Districts for the year 1886-87.

RESOLUTION.

THE Forest Report for 1886-87 was received in this office with the Commissioner's review on the 23rd July. The Government of India were pleased to commend the promptitude with which the Report was submitted last year, and the further improvement now effected is creditable to the local officers.

2. The total area of forest lands in Berar on the 1st April 1887 was 4,141 square miles, showing a diminution during the year of 201 square miles. Four square miles were excluded from reserved and village forests under circumstances described in paragraph 21 of the Conservator's Report, and, mainly owing to land restored for cultivation in the Buldana, Basim, and Wun Districts, the area of unclassed State forests and waste lands decreased by 208 square miles. Eleven square miles were added under this class, making the net decrease 197 square miles.

3. The delay in sanctioning the proposals regarding the Mehdari Reserve to which the Conservator refers in paragraph 7 is due to a difference of opinion between himself and the Commissioner on the very vital point of the manner in which its formation will affect the village. The Conservator omitted to draw attention to its immediate contact with tenements in the actual occupation of its inhabitants.

4. The boundary between the Central Provinces and Berar was corrected where necessary by a commission of officers, and excepting in the Amraoti District, where the District Forest Officer is blamed for negligence in this work, survey marks around the various tracts were inspected, repaired where necessary, and appear generally to have been maintained in a state of efficiency.

5. The operations of the forest survey necessarily to some extent overlap the period to which the official year relates, as the working season in the field does not terminate until June. The amount of work completed during the period ending June 1886 was mentioned in the Report for 1885-86; but it may be noticed here that the cost per square mile, estimated on the area surveyed by the plane-table during that season, shows a saving of Rs. 9 and Rs. 8 per square mile in the 4-inch and 2-inch surveys respectively. Up to the 30th April of this year the total area plane-tabled is 337 square miles, whilst 383 square miles have been triangulated. The whole of the Melghat and Binjara jagir have been triangulated, and the topographical survey of the Gugumal and Bairaghar Reserves is complete. On the whole the progress made appears to be very satisfactory.

6. A preliminary working plan for two blocks of the Bairaghar Reserve was prepared by the Conservator and sanctioned during the year subject to certain conditions. The proposals then made were, however, framed under the disadvantage of having no accurate survey for reference; but now that the greater part of the Bairaghar Reserve has been topographically surveyed, it may be desirable, by the light of the more accurate information available, to revise the preliminary proposals; the Conservator will be addressed separately on this point, and also on the desirability of preparing plans for working other portions of this important reserve. The preparation of the one already submitted, based principally on a system of averages, resulted in the collection of much useful information, and the Resident hopes that the attention of the Conservator will be continuously directed towards the necessity for extending the commencement which has now been made, and for preparing the working plans which experience elsewhere has proved to be necessary for the scientific working of forests.

7. In paragraph 30 the unhealthiness of the forests is alluded to as aggravating the difficulty, unless higher rates of pay are offered, of finding suitable recruits for the subordinate staff. The matter is one of great importance. It is very undesirable to enhance the cost of forest administration if this can be avoided, and before proposals for increasing the pay of foresters can be considered, it will be necessary to exhaust all practicable means of obtaining recruits on the present scales of pay.

8. The Berar Forest Law, 1886, has not as yet come into operation. The appearance of the notification declaring it to be in force has been postponed pending the completion of the rules which the Commissioner states may shortly be expected. When these have been finally passed, the District Forest scheme to which the Conservator alludes in paragraph 10 will require further consideration and orders on certain points.

9. There were 406 cases of breaches of the forest law during 1886-87, or 16 less than in the year preceding. There was, however, a falling-off of 6 18 in the proportion of convictions to prosecutions. Cases were most numerous in the Ellichpur and Akola Districts, where the percentage of convictions is also lowest.

The Resident will await the result of the reference to the Deputy Commissioner of Amraoti on the complaint as to the decision of a Native Magistrate in a forest case, which the Conservator considers was improperly dealt with. Regarding the observation made by Colonel van Someren that some Magistrates have a tendency to punish too lightly in such cases, it is perhaps not unnatural that officers exercising both magisterial and executive functions should be tempted to deal leniently with offenders under the forest law, and it is, of course, very undesirable that the people should be harassed by a strained or vexatious interpretation of its provisions; on the other hand, it is equally necessary that the interests of Government should be protected and the exercise of unauthorized rights repressed. It is not perhaps easy to hold a mean course between these two conflicting objects. But the Resident is convinced that leniency in the introduction of novel regulations is not only just in itself, but is also, if accompanied by patient explanation of our motives and wishes, the best policy in the end.

10. In the matter of fire protection, the Report shows an improvement which is on the whole satisfactory, though the large area burnt in the Wun District is in excess of what it might have been judged by the success in the Melghat.

The area under protection was slightly less, whilst the failures decreased by 13,573 acres, the expenditure being Rs. 5-11-5 per square mile protected, against Rs. 5-14 in 1885-86.

Of the 14,769 acres damaged by fire 11,419 acres were burnt in the Wun District alone. The frequency of these fires, the fact that five of them were due either to imperfectly-prepared fire-paths or to negligence in clearing them, and the ineffectual attempts made to discover the offenders, go to show that the forest staff of this district were negligent in their protective duties.

The remarks contained in paragraphs 13 to 15 of the Conservator's Report demonstrate the advantage of excluding fires from tracts containing bamboos, and his observations are more or less applicable to all forests, especially those bearing young produce.

It is not understood that the purely conjectural figures given in paragraph 44 as the estimate of unprotected forest areas which escaped fires serve any useful purpose, or rest on any likely evidence. Identically the same figures are given in three succeeding Reports, *viz.*, for 1884-85, 1885-86, and 1886-87; yet it seems to be improbable that the same basis of calculation can be accepted to do duty year after year in dealing with such an uncertain element of probability. The Commissioner mentions that Deputy Commissioners will in future be directed to report specially on the extent of the unprotected areas which escape fire.

11. The Conservator reiterates his opinion, which is agreed in by the Commissioner, that light grazing, under certain conditions, not only does no harm, but is actually beneficial. In this view the Resident personally expresses his full con-

currence. He believes it to be both injudicious and unnecessary to debar villages from the exercise of immemorial rights in tracts which are not fenced off for direct planting purposes. The system of raising a revenue on grazing throughout the province is not uniform; in parts of three districts the grazing was sold to contractors, whilst a direct departmental system is also in operation. 830,291 head of cattle were grazed under the latter method of payment.

12. It does not appear, from the Conservator's report, that sufficient attention has been paid to cultural operations. The question of broadcast sowings was noticed by the Government of India in their remarks on the Forest Report of 1885-86, and the Conservator is at some pains to explain (paragraph 52) that though sowings are made tangible results may be frequently deferred; he admits, however, that the area sown during 1886-87 was "smaller than it should have been," and the Resident expects that District Forest Officers, recognizing the necessity for reproduction, will devote sufficient attention to this important branch of their work.

13. The nursery experiments with Burmah bamboos and Bushire edible date plants are interesting, and the result of the attempts made to acclimatize them will be watched with interest.

14. A large number of trees (3,472) were cut down in the Bairaghar Reserve. These were all "improvement fellings," and the wood was found in many cases to be unsound. The removal of produce by purchasers in the various districts is dealt with in paragraphs 63 to 70 of the Conservator's Report. The transactions both in interest and importance naturally centred in the Ellichpur District, but they are summarized for the whole province in paragraph 71 as follows:—

			1886-87.	1885-86.
Trees (Melghat)	...	No.	3,472	642
Timber pieces ...	...	"	227	...
Teak ..	...	C. ft.	171,028	144,136
Other kinds ...	...	"	177,904	136,642
Firewood and charcoal	...	"	386,775	313,023
Bamboos ...	...	No.	2,122,741	2,715,301
Grass ...	...	Tons	14,732	8,641
Roots and fruits	...	"	989	705
Lac ...	...	"	6	12½
Teak leaves ...	...	"	274	263
Gum ...	...	"	1	3½
Miscellaneous ...	...	"	20	21½

There was a general increase in the removal of all produce excepting bamboos, lac, and gum. The decrease in the two latter items is not explained; but the decline in the number of bamboos purchased is said to be due partly to unseasonable weather which impeded traffic in January, and also to the difficulty of hiring sufficient carriage.

The Resident observes with satisfaction that 4,999 tons of grass were sold in the Wun District, or 1,000 tons in excess of the amount for 1885-86, and this notwithstanding that 16,749 head of cattle were admitted to graze in the forests of that district, as against 11,223 in the previous year. This result may fairly be attributable to improved supervision.

15. With regard to the remarks contained in paragraph 11 of the letter* containing the orders of the Government of India on the Forest Report of 1885-86, it may be mentioned here that the proposals for farming out the nakas in the Melghat have been, after full consideration, relinquished. They were at first accepted on the representation of officers possessing an intimate knowledge of the tract and people; but in order to avoid possible disturbance of budget arrangements, their introduction was postponed for a time, and subsequently, as it appeared that the direct system of management was working satisfactorily, the Resident considered a change unnecessary.

* No. 953-F., dated 16th November 1886.

16. The financial results of the two past years are as follows :—

Revenue.

	1885-86.		1886-87.
	Rs.		Rs.
1. Reserved Forests	54,331	...	57,223
2. Village „	1,72,605	...	1,68,962
3. Unclassed state forests and waste lands	93,111	...	1,00,262
Total ...	3,20,047		3,26,447

Expenditure.

	1885-86.	1886-87.
	Rs	Rs
1. Reserved Forests	62,470	64,694
2. Village „	45,049	51,182
3. Unclassed state forests and waste lands	51,516	55,634
	1,59,035	1,71,510

There has thus been a slight increase in revenue accompanied by a somewhat higher expenditure.

The past three years have witnessed a steady growth of revenue. The noticeable features of the revenue for 1886-87 are an increase and decrease in the amounts realized from timber and firewood respectively ; an increase in the revenue on bamboos (notwithstanding the smaller yield) owing to the enhanced royalty ; a continuance of the receipts from the sale of fodder grass and grazing fees at almost the same figure ; and an increase in the sales of minor produce.

The extra expenditure is largely made up of officers' salaries, Rs. 6,777 ; and Rs. 3,875 paid as Mr. Prevost's furlough allowances, the debit of which to the Berar Budget the Conservator takes exception to. The charge appeared to be a fair one against the province, and the Resident did not therefore consider it necessary to refer the case to the Government of India.

In paragraph 13 of his review the Commissioner expresses an opinion that the expenditure on forest administration "is on a very liberal scale, and it is clear that more economical management should be arrived at," and he then refers to items of expenditure "on travelling allowances" and "purchase of tents" as affording scope for reductions. The Resident will be glad to receive a more detailed expression of Mr. Saunders' views on this point. An extravagantly-conducted administration cannot be too strongly deprecated, but there is nothing to show that this reproach attaches at present to the Berar Forest Department. It is doubtful whether curtailment of travelling allowances is a judicious measure in promoting efficiency, whilst the purchase of tents was doubtless necessitated, as the Conservator explains (paragraph 74), by the formation of new district charges.

17. The Conservator brings to notice the good work done by Messrs. Prevost and Mansukh Rai, and specially mentions the name of Mr. Ballantine, whose excellent services in the Melghat have on more than one occasion been prominently reported, and who has now left Berar to seek in His Highness the Nizam's service the advancement he has so well merited. In conclusion, the Resident desires to thank Colonel van Someren for his interesting report, and the results which have attended his administration of the Berar Forest Department.

(By order.)

DONALD ROBERTSON, MAJOR,

Secretary for Berar.

No. 1016F., dated Simla, 25th October 1887.

From—SIR E. C. BUCK, Secretary to the Government of India, Revenue and Agricultural Department,

To—The Resident at Hyderabad.

I AM directed to acknowledge the receipt of your letter No. 328G, dated the 19th August last, forwarding the Progress Report of Forest Administration in the Hyderabad Assigned Districts for the year 1886-87. I am to express the satisfaction of the Government of India that the Report, which is accompanied by a letter from the Commissioner and by your Resolution of the 16th August 1887, was submitted punctually.

2. In accordance with the orders contained in Circular No. 4F, dated the 25th April 1887, the whole of the forests in Berar should, for the present, appear under head (B) "Unclassed State Forests and Waste Lands," as none of them have yet been placed under the Forest Law. The classification into Reserved, Village, and Unclassed Forests is, in the opinion of the Government of India, inappropriate, that adopted in the Report for 1885-86 being preferable.

In view of the climatic conditions prevailing in Berar, it is absolutely necessary to secure the permanent maintenance of a large forest area, and for this purpose steps should be taken, as early as possible, to declare suitable areas to be State Forests under the Berar Forest Law. The formation also of some of the waste lands remaining at the disposal of Government into Fodder Reserves seems to the Governor General in Council to be desirable. His Excellency in Council trusts that the Mehdari Reserve will shortly be gazetted.

3. The progress made in Forest Surveys is satisfactory; but, referring to the remark made on this subject by the Commissioner, it is hoped that the estimates on account of surveys will not be exceeded. With reference to the proposed removal of old and inferior stock from the Bairaghar Reserve, in advance of the demand, I am to observe that if it is intended, for purely sylvicultural reasons, to fell unsaleable trees, such an operation would rarely be justifiable.

4. The Berar Forest Law, which was published during the year, has not yet come into force, pending the drawing up of a set of Rules to be made under it. His Excellency the Governor General in Council is glad to learn that these will shortly be passed. The Government of India agrees generally with your remarks on the subject of the treatment of Forest offences.

5. The considerable area burnt during the preparation of fire-lines was doubtless due to the work having, in consequence of the January rains, been undertaken too late in the season. The Conservator's remarks regarding the favourable effect caused by fire conservancy on the growth of bamboos have been perused by His Excellency in Council; fuller observations in this direction would be of great interest. The Government of India agrees with you that the purely conjectural figures (which, not being in round numbers, convey a misleading appearance of accuracy), given by the Conservator as his estimate of unprotected forest areas which escaped burning, have little if any value.

6. The question of the effect of "light grazing" in the Berar forests is still under discussion. There are no doubt cases in which, under efficient supervision and at certain stages of forest growth, such grazing may be advantageous. But it is unquestionable that there are also conditions of forest growth in which the lightest grazing does very serious damage. The question is not one on which the broad generalisation made in paragraph 11 of the Resident's Resolution of 16th August can be unreservedly accepted. The Government of India expects that care and discrimination will be exercised, and that even light grazing will not be readily permitted in parts of the Reserves where, especially in the earlier stages of forest growth, it can hardly fail to be harmful.

The large increase of 187,384 in the number of cattle admitted to graze during the year should have been specially noticed in the Conservator's report.

The Governor General in Council is glad to learn that the existing system of farming the collection of grazing dues will cease during the current year.

7. Natural reproduction appears to progress favourably, especially in forests which are protected from fire. The question of the seeding of bamboos, referred to by the Conservator, is worthy of attention.

The area of regular plantations was increased by 50 acres. It is not understood why the area planted was "cleared;" it being generally understood that, when planting young trees, advantage should be taken of existing spontaneous growth, in order to afford them the necessary amount of shelter. Cultural operations extended over 1,947 acres, principally in the form of broadcast sowings. Such operations, if successfully carried out, are of great importance in places where the natural young growth is insufficient; and the result should be carefully recorded and reported, with a view to the utilisation, elsewhere, of the experience thus gained. In a climate like that of Berar, attempts to raise bamboo forests are more likely to be successful if nursery-raised plants are put out, than if the seed is sown *in situ*. The Government of India will be pleased to hear that the introduction of the Bushire edible date into Berar has been successfully accomplished. His Excellency in Council is glad to acknowledge the attention paid to the opening up of the forests by means of roads.

8. 3,472 trees were felled by Government agency, as compared with 642 during 1885-86. No explanation is afforded of this large increase in number.

9. The reduced export of bamboos is ascribed to unseasonable weather in January, and to the employment of a large number of carts by the Public Works Department; but, taking into consideration the figures of last year, as compared with those of 1884-85, the subject demands, in the opinion of His Excellency the Governor General in Council, further investigation and report. The Government of India shares the satisfaction you express that improved supervision in the Wûn District so favourably affected the revenue obtained from grass.

10. On the whole, the financial results of the Forest Administration may be considered satisfactory. A considerable further improvement in the profits may be looked for as soon as carefully prepared working-plans can be brought into force.

No. 1017F.

COPY forwarded to the Foreign Department, for information.

Appendix showing the discrepancies noticed in the Forms appended to the Report of Forest Administration in Berar for 1886-87.

FORM No. 49.

(Reserved Forests.)

In future, the aggregate area of "Reserved Forests" in each Division should also be shown in this Form.

FORM No. 55.

(Outturn of Minor Forest Produce.)

In the abstract of the several items, at the foot of the Form, the number of buffaloes that grazed is given as 93,645, instead of 340,635.

The Conservator has omitted to give Annual Form No. 56, although Departmental fellings took place (see paragraphs 61 and 62 of the Report).

G. C. Press, Simla.—No. 603 R. & A. D.—31.10-87.—250.